

THE INLAND PRINTER

A TECHNICAL JOURNAL, DEVOTED TO THE ART OF PRINTING.

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CONCERNING PRINTING-INKS.

INK OF THE ANCIENTS—PRINTING-INK OF THE EARLIEST PRINTERS
—THE INK OF CAXTON'S AND ALDUS' DAY—PRINTING INK OF
THE PRESENT DAY—INK-MAKING AS CARRIED ON
BY GEORGE MATHER'S SONS.

THE well worn apothegm that "necessity is the mother of invention," finds no more striking exemplification than among the peoples of antiquity, whose intellectual activity naturally sent them in quest of means whereby to preserve their thoughts in writing. The moment that a nation begins to think, its thoughts at once seek to express themselves in permanent, outward and visible forms; at first crude and symbolic, then in the more definite sign or picture-writing, and finally in the exact written language of letters, words and phrases. The ancient Egyptians, a very intellectually active people, although they do not seem to have been—as was that older nation, the Chinese—acquainted with the art of making paper from pulp, artificially prepared, deserve honorable mention for their ingenuity in the manufacture of the famous papyrus paper—a sheet formed by laying the thin pellicles of that plant, one upon another, subjecting the whole to pressure, and subsequently drying it in the sun. In addition to papyrus, vellum or prepared sheepskin served the purposes of the bookmakers of the day.

We must now ask ourselves how and in what manner the ancients set down their thoughts in black and white, and this question brings us to the subject of ink, and it is a curious fact that our modern printing-ink is essentially identical with the writing-ink of the ancients; that is to

say, it consisted of a carbon in suspension in a vehicle, and it doubtless had about the consistency of our modern printing-ink. As may be supposed, its vehicle being a gum or resin, the carbon-pigment took no such indestructible hold upon the paper as does the black of modern printing-ink when incorporated thoroughly and scientifically with the insoluble varnish, or boiled oil; but in the hands of the patient and dexterous scribe of antiquity it served an admirable purpose, filling the bill,

to speak tritely, to the letter.

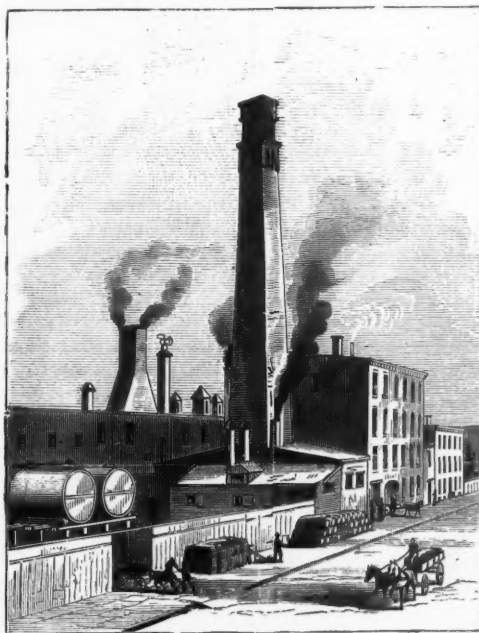
We are indebted to Pliny and Dioscorides for formulas of the writing-ink used by Greek and Roman scribes during the first century. Pliny informs us that it was made of soot, charcoal and gum, and he alludes to an acid, occasionally an additional ingredient, to give the ink an encaustic property, and make it bite into the papyrus.

Dioscorides gives formulas with scientific accuracy, to-wit: One ounce of gum, with three ounces of soot, or half a pound of smoke-black, made from burned resin; half an ounce each of copperas and ox glue.

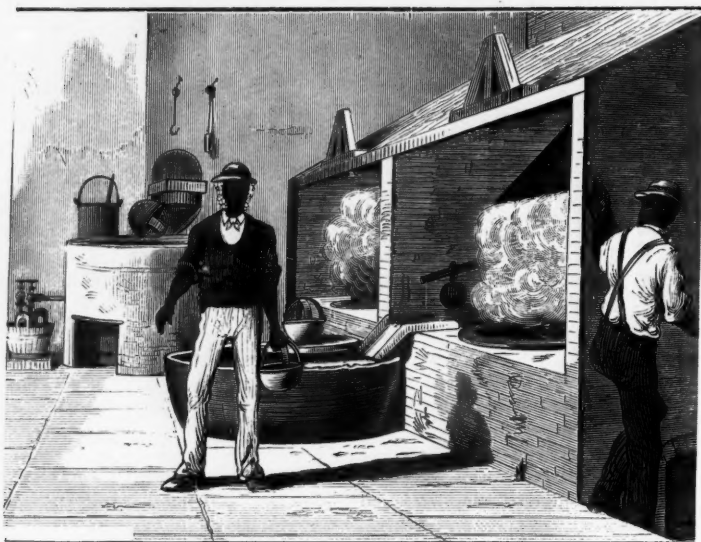
Doubtless a modern ink-maker would qualify this mixture as being little above the dignity of a shoe-blackening, and we must readily admit that it would have utterly failed if applied to the surfaces of mod-

ern type. The method of application was by means of a reed with a split point, the progenitor of our modern goose-quill, the scribe dipping the instrument into the mixture, which probably had, as already stated, about the consistency of the printing-ink of our day, and rather painting upon the vellum or papyrus than writing, as we understand the term *currente calamo*.

Cicero tells us that the fluid of the cuttle-fish was an



THE FACTORY.



VARNISH-MAKING.

ingredient of the ancient ink, and we are justified in assuming that it resembled the solution of water and India-ink of our day, in such general use among our artists and draughtsmen, except that the ancient ink was thicker, being so highly gummed as to give the writing on the parchment a relief, as if embossed. The compounds of black and gum were continued in use without substantial modification by the scribes of the dark ages.

PRINTING-INK OF THE EARLIEST PRINTERS.

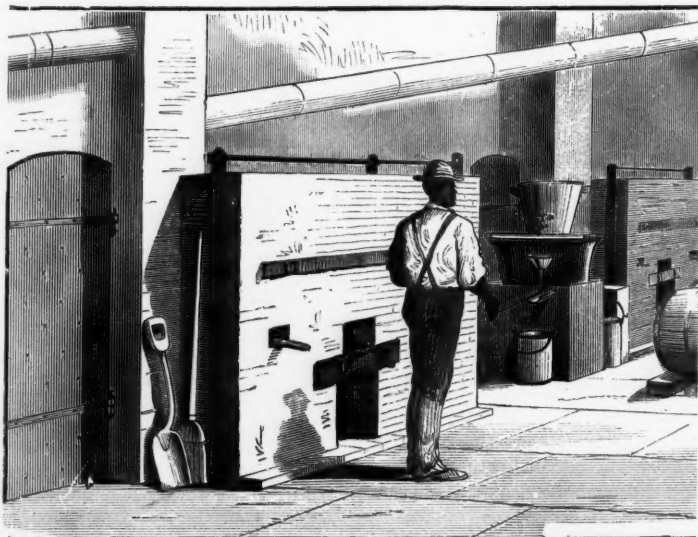
We may almost venture the assertion that printing from fixed type, or stamps, or seals was never discovered by anyone. In other words, that stamping, branding, etc., was known to the most ancient people of whom history gives any record. To impress a trade-mark or other inscription on an unburnt brick by means of a stamp necessitates the cutting of raised letters. Babylonian, Assyrian and Egyptian antiquities contain such stamps, seals or brands. We may go farther and assert positively that even movable type were known to the more civilized nations of antiquity. Why then, we hear it asked, did not these nations foresee the inestimable advantages to accrue from the use of movable type in the art of printing? The answer is simple, and it brings us face to face with the question under discussion. They had no ink. Their mixture of lampblack and gum would have been worse than useless when applied to the surface of wooden or metal types. It would become necessary, of course, to liquefy the mixture, with the inevitable consequence of its gathering in spots on the face of the type. It needed the boiled oil or varnish of modern printing-ink to hold the black in even solution, and by the eager affinity of the varnish for the fibrous material, fasten it firmly and securely

upon the paper. Here, then, was an invention to be made, and the typographical art had to wait patiently until some one should be practical enough to suggest mixing the black with boiled linseed oil as a proper vehicle to hold it in even suspension and fasten it with wonderful tenacity upon the surface of the paper.

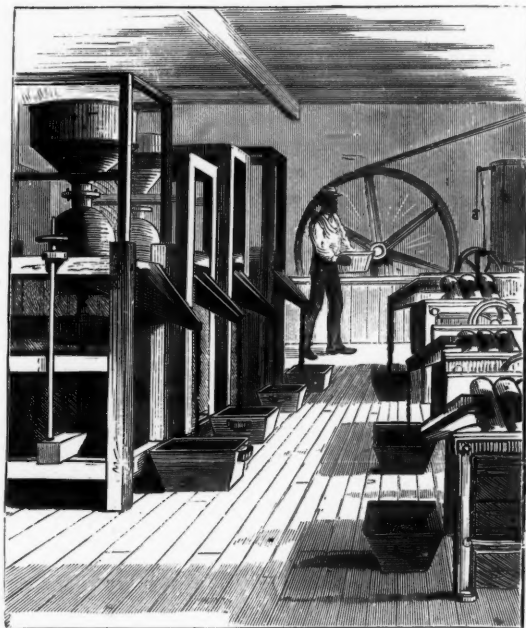
Who exactly deserves the honor of being enrolled among the great benefactors of humanity is, as is often the case, shrouded in doubt and uncertainty. Suffice it to say that the invention, attributed by some to unknown Italian painters of the fourteenth century, and by others to Hubert Van Eyck, of Holland, antedates the invention of the printing-press by only a brief period. Much of the work of the earliest printers, however, was performed with inferior ink. In Gutenberg's "Psalter," of 1457, while its general appearance is good, showing a glossy black, yet in other places it is simply a faded color,

which had called for retouching with a pen or brush, or both. In the work of others of the early printers the ink is a dingy and smeary black, and in some it can readily be sponged off entirely. In none of the earliest work is there found that evenness of later centuries, resulting from the thorough incorporation of the ingredients by the grinding mill.

The tendency of our day unduly to extol the productions of "ye olden tyme" finds no exception in the matter of printing-ink. We are gravely informed that the ink of Gutenberg's time was blacker than the scientifically prepared products of our leading modern manufacturers, in spite of the complete transformation of the raw oil into an insoluble varnish, freed from all of its fatty constituents, such as glycerine, etc., by the different processes of classification, washing, boiling, etc. True, the ink of the fifteenth century may seem blacker for the simple reason that



LAMPBLACK DEPARTMENT.



BLACK-INK GRINDING.

the heavy-faced type, the "black letter" of that century, transferred to the paper such a large quantity of ink as compared with the delicately-faced type of our day, that it would seem like comparing the intense black of a morning journal headline with the daintily inked pages of *THE INLAND PRINTER*. One of the great excellencies of our modern ink consists in such a thorough incorporation of its ingredients by means of the grinding mill, that complete evenness in color and consistency is the result, parting readily with its humidity upon reaching the paper, and never showing any trace of foxiness.

THE INK OF CAXTON'S AND ALDUS' DAY.

William Caxton, to whom belongs the honor of having printed the first book in the English language, originally a French work, of which Caxton himself was translator as well as printer, died about 1491. Possibly his activity as a printer extended back twenty years. Aldus, the famous Italian printer, whose numerous editions of the classics are so well known to scholars, flourished somewhat later. In 1513 we find him offering a gold coin for every mistake that should be discovered in his "Plato." This shows an enthusiasm for artistic *technique* quite refreshing in these days of mercantile *geist*. Within the period covered by the activity of these two famous typographical artists, printing-ink began to take on its true and just importance as a coördinate factor in the new art that was destined to enlighten the world with almost superhuman speed and never-tiring energy. Like the long wait that occurred before human ingenuity grew bold enough to perfect the sewing machine by transferring the eye to the point of the needle, so movable metal types might have slept along for another century had not the genius of man hit upon boiled linseed oil as possessing the proper qualifications to be the vehicle that should bear black pigment to a far nobler use than that to which man put inert clay when he

fashioned the porcelain vase or dull iron when he beat it into a ringing sword-blade.

Contemplate the most astonishingly contradictory qualities possessed by this compound known as printing-ink, of which boiled linseed oil constitutes so important an ingredient. It is as black in its infinitesimal divisions as in the mass. Although without acids to bite it in, it takes such firm hold of the paper that the tooth of time can only destroy it by the destruction of the book itself; with no inclination to dry on the inking-table, it dries instantaneously on the paper; it goes willingly to the face of the type, and willingly from it, with wonderful affinity for the fibrous sheet on which it is impressed; it stays exactly where it is put, even to the sharpest hair-lines; it distributes freely, but never runs.

The question naturally suggests itself: "Shall we ever find a substitute?" Hardly, it would seem. The fountain is inexhaustible; the cost of production comparatively low; adulterations are immediately discoverable. The earliest printers had manufactured their own ink. There were many and grave objections to this. Not only danger from conflagration resulting from boiling the oil, but it was too dirty and smeary a process to carry on anywhere around a printing-office. There is extant a formula of this period as used in operating the celebrated Ripoli Press, of Florence. It seems a little strange to find nutgalls and vitriol figuring in the Ripoli formula, for while they may be, and doubtless are indispensable ingredients in a writing fluid, their presence in this old formula can only be justified save on the score of ignorance. If we are to judge by much of the work from the presses of these early printers, their ink was as excellent as their execution was painstaking and artistic.

We should not pass to the consideration of the printing-ink of our day without a brief reference to the ink of William Bowyer's time, and it seems eminently proper to attach

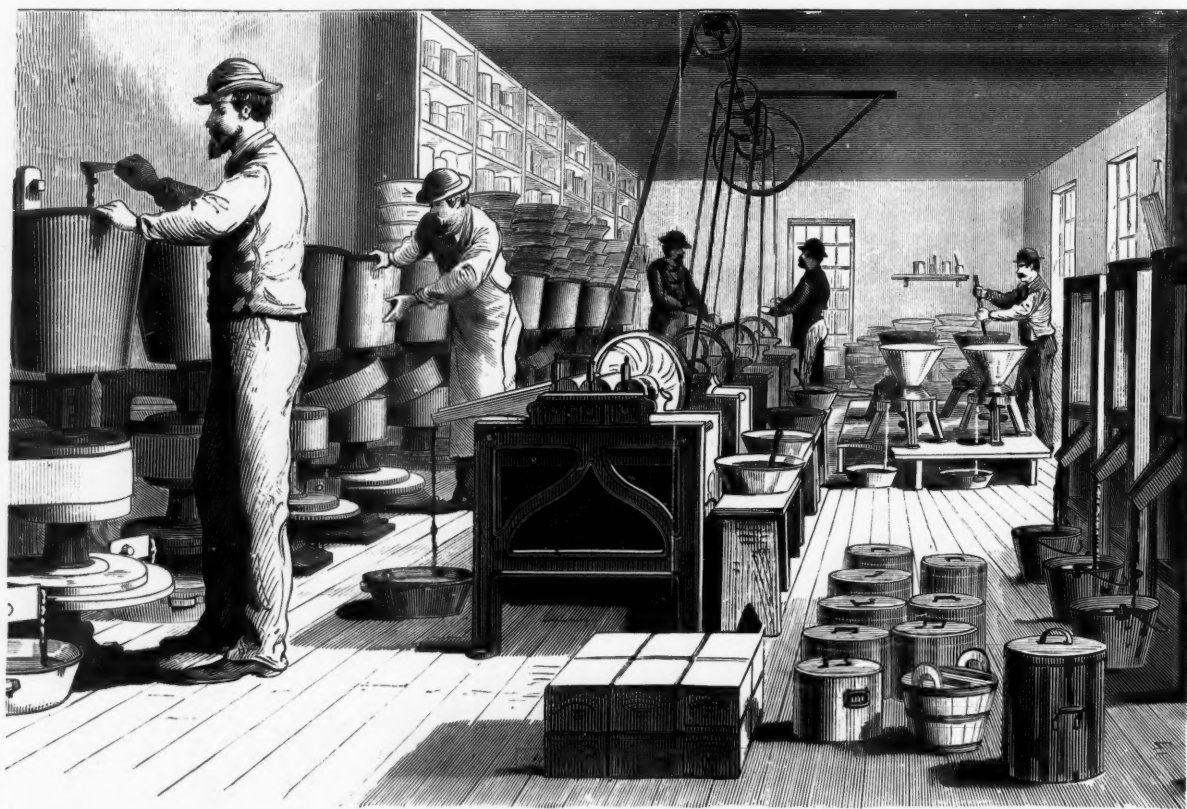


COLOR PLANT.

the name of England's famous printer to an era made glorious in the history of typographical art by his learning, his eminent position, and his artistic work — an era immediately preceding ours, and one to which we owe much as an earnest and a sampler of what can be done in an industrial art when superior intelligence and a lofty spirit of pride in one's calling go hand in hand with that constancy and intensity of application so necessary for excellence in any labor. To this era Bulmer, Macklin and others lent prestige by the superiority of their work. The ink used by the printers of Bowyer's day still retains its gloss and color. No yellowness or foxiness is as yet apparent. That Bowyer was *facile princeps* in the artistic excellence of his work, must be apparent to anyone who examines the

The materials now being at hand, it is in order to outline, in a rough way, the processes used in forming them into the homogeneous whole, known as printing-ink. In this the task is not inconsiderably lightened and its interest greatly enhanced for the general reader, from the fact that the writer is able to present on this and the preceding pages spirited and accurate illustrations of the *modus operandi* of these various processes as conducted by one of America's most eminent inkmakers, to-wit, the house of George Mather's Sons, whose factory is located in Jersey City, State of New Jersey, but whose counting-house and ware-rooms are at No. 60 John street, in the city of New York.

The factory of this well known firm was established in 1816, and has been in continuous operation ever since.



COLOR GRINDING.

record of his life. In 1729 we find him printer of the votes of the House of Commons; later printer to the Society of Antiquaries and the Royal Society. In 1767 he was appointed printer of the rolls of the House of Lords, and the journals of the House of Commons.

PRINTING-INK OF THE PRESENT DAY.

Three principal ingredients are combined to make the printing-ink of the present day — linseed oil, lampblack and rosin. Two subsidiary elements, manganese and yellow resin soap are used, the former in its different states as a drier, and the latter to prevent smearing, and to assist in obtaining sharp impressions by making the ink leave the type more readily.

George Mather was the founder of the business. Being a practical printer, and, as is pretty generally the case with members of that guild, a man of far more than ordinary intelligence, his attention was attracted to the fact that all of the finer qualities of printing-ink were imported from France and England. Here, then, was an opportunity which promised not only inestimable advantages to the young republic, but also fame and fortune to the right man in the right place. Such Mr. Mather proved to be. After a long series of experiments he succeeded in producing black inks fully equal in quality to those imported. The founder of the house lived to see his establishment acquire a national reputation, springing from small premises and primitive appliances to a plant perfect in all of its depart-

ments, representing a moneyed value of many hundreds of thousands of dollars. The engraving of the factory gives the reader only a faint idea of its capacity and magnitude.

Four years before his death, which occurred in 1861, George Mather turned over his extensive business to his two sons and his son-in-law, Ralph N. Perlee, who continued the administration of the business under the firm-style of George Mather's Sons. In 1878 the firm was again readjusted, a step brought about by the retirement of D. W. C. Mather, and the succession to the business of the two remaining partners, S. Talmage Mather and Ralph N. Perlee.

About the time of the last-specified firm-change the art instincts of our people began to demand a typography of higher class, more delicacy in type faces, taste in ornamentation, and above all warmth and beauty only to be attained by the use of colored inks. Here again this eminent house was not found wanting in either talent or liberality in the use of money. Mr. Perlee now came to the fore. The most thorough and extensive experiments were entered upon under the personal direction and supervision of Mr. Perlee, involving an expenditure of many thousands. *Exitus acta probat!* How successful these experiments were may be inferred from the fact that to the house of George Mather's Sons was decreed the rare distinction of being allowed to furnish almost all of the colored inks used by the United States government during the war in printing greenbacks and bonds. Mr. Perlee was also equally successful in his efforts to furnish the pictorial press, which at the outbreak of the war began to give signs of wonderful development, with an ink that should meet every requirement necessary for fine wood cut work. The now famous publications known as "Picturesque Europe and America," "Picturesque World," *Art Journal*, and many other specimens of the finest typographical execution yet attained in our country have been printed with the inks of this firm.

The first illustration to which the reader's attention is directed is that entitled "Varnish Making." The classification of the oil is effected by digesting it for some hours with dilute sulphuric acid, at a temperature of 212 degrees, and afterward washing it with hot water, to give it drying quality. Next in order comes the boiling of the oil, a process demanding the greatest skill and technical discernment. The inflammable vapors which arise from the surface of the boiling oil are allowed to ignite, and, after burning for a few moments, are smothered by a cover. The boiling process must be continued until a drop taken out and placed on a cold surface cools with a film. The resin soap, etc., now find their way into the boiling mass, the quantity of rosin depending, as already stated, upon the body desired to be given to the ink. The union of the oil and rosin produces a resinified and insoluble compound or varnish, closely resembling Canada balsam. The oil is now ready for the incorporation of the black pigment. The firm of George Mather's Sons is independent of the outside world for supplies of this indispensable ingredient of printing-ink. It manufactures its own blacks. The illustration entitled "Lampblack

Department" will give the general reader a correct idea of the kind of furnace used in making the lampblacks.

The next and most important step in the whole process of inkmaking is the grinding. The engraving entitled "Black-Ink Grinding" explains itself. First, the mixing process is effected by drawing off the compound into cylindrical vessels, in which it is kept stirring by means of a revolving shaft with fingers. From these receptacles the mixture finds its way into the grinding-mill, where the various ingredients, under the action of powerful rollers, soon lose any identity that they may hitherto have preserved. The whole is ground into a smooth and uniform paste, the black, its vehicle and the remaining ingredients being so thoroughly blended that the resulting product takes on peculiarly distinctive qualities unknown to any other product of art or nature. The other two illustrations afford views of the color plant, a large and distinctive feature of the Mather establishment, whose colored inks have acquired a world-wide reputation for evenness, brilliancy and durability. The large engraving shows the process of color grinding. By means of iron and stone rollers of great strength, driven by steam-power, the various pigments are reduced to a fineness productive of delicate effects in color-printing beside which the work of the most skillful artist, armed with magnifying glass and camel's-hair brush, seems ragged and uneven.

The printing-ink of the house of George Mather's Sons possesses all of those qualities which give satisfaction to the printer who is emulous of producing artistic work. While readily attaching itself to the face of the type, it shows greater affinity for the paper, reproducing, with a sharp outline, not only the exact stamp of the heavier-faced type, but tracing with perfect exactitude the razor-edged hair-lines and their stems of modern type, and while retaining its softness in the mass, it shows readiness to dry rapidly when applied to the paper.

A writer has thus enumerated the requisite qualities of a good printing-ink:

1. It must distribute freely.
2. It must have much greater affinity for the paper than for the type.
3. It must dry almost immediately on the paper, but not dry at all on the type or rollers. This is a great *desideratum* for newspapers.
4. It should be literally proof against the effects of time and chemical reagents, and should never change color.

That the Mather inks possess in an eminent degree these necessary qualifications is more than proved by the fact of their uninterrupted popularity of sixty-seven years, possibly not an astonishing period of time in the Old World, but with us on this side of the Atlantic something to be proud of.

THE last issue of *Caslon's Circular*, just received, publishes in addition to other noteworthy features, a four-page inset containing fifty specimens of jobbing fonts, suitable for election addresses and similar copy. This is done with a special desire to assist their customers in making proper selections, in view of the approaching elections throughout Great Britain.

RECENT IMPROVEMENTS IN PLATEN PRESSES.

THERE are in common use two classes of platen presses for job printing. The late Geo. P. Gordon originated a class, the distinctive feature of which is the revolving ink disk; and his old style Gordon has had a host of imitators. The distinctive feature of the other class is cylindrical distribution, originated for job presses by Ruggles, copied by the now obsolete Globe Press, and brought to its best development by Merritt Gally in his Universal. Each class has undisputed merits specially its own, and each has its limitations. It appears, therefore, that the goal of the inventor should be the successful combination of the good qualities of each class, and the elimination of the defects of each. That such an effort has been successfully made it is the purpose of this article to show by a comparison of the leading presses in plain terms, undisguised by technicalities.

All printers will agree that the requirements in a first-class press include power and equality of impression; regular supply of ink to the disk; thorough distribution of the ink, with ample means of conveying the same to the form; durability and rigidity of the platen, bed, and frame under strain; ease of operation by treadle; speed; handy throw-off; easy and effective adjustment of the platen; convenience of platen, and adaptability to all classes of work. It follows that the press which combines the majority of these features in the highest development is the best press. With these requirements in view, and after a careful study of all existing presses, the Improved Golding Jobber was devised by Mr. W. H. Golding, of Boston, whose success as an inventor in other directions is well known to the trade.

METHODS OF CONSTRUCTION AND RIGIDITY.

Modern builders of machinery insist that the frame of a machine should be cast in one piece when possible. By this method only can the shafts and bearings be kept in line, as it makes them independent of inequalities of flooring, and adds to the durability and easy motion of the press, besides making it practicable to cast a solid, unyielding bed in the frame, giving the utmost resistance and rigidity under strain. The Universal and the Golding Jobber have this feature in common, while the presses of the Gordon class (in which are included all other platen presses now made), are set up in side frames, bolted together by cross supports, and are liable to sag on one side or at one corner, throwing the shafts out of line. Once out of line the press wears hard and runs hard, and much time is lost in underlaying and overlaying to get a square impression, as the bed necessarily springs with its bearings. A moment's reflection will convince the practical man that

the common sense method clearly is to have the frame and bed in one piece.

Having secured a base of operations,

THE PLATEN AND ITS ADJUSTMENT

next invite attention. How to construct a platen which will sustain heavy impression equally at its center as at its corners, and be at the same time susceptible of quick, delicate, and easy adjustment is a problem which nearly all the builders of first-class presses have failed to satisfactorily solve. The older and common method of platen adjustment by screws at the corners, is decidedly crude and ineffective. The whole strain of impression is on the threads of the screws, which quickly wear out; the center of the platen is unsustained, and therefore liable to be weak—a too common and annoying fault in presses; and the means of adjusting the impression are clumsy, difficult to regulate, and inconvenient of access. Every experienced printer has recognized these defects. Fig. 1 represents the screw-bearing platen in common use. Note that the corners only are sustained, and the center, on which most of the strain falls is unsustained; at A A is shown a fault not commonly noticed, but which is the cause of slurring and poor register in nine cases out of ten. Here we have an outline of a platen secured to a frame swinging on a shaft below the bed. As the strain on the screws causes them to wear, the platen sags as at A A, and it is lifted as the platen is forced to a bearing on the screws by contact with the form, causing a slur, and rubbing the type with destructive effect. We have never seen a platen arranged on this principle which after short wear did not exhibit the defect here illustrated.

When the manufacturers of the Gordon ventured on improving

their press they recognized this defect, and substituted an arrangement of slides, throwing the adjustment behind the bed. We cannot admit any advantage in this plan over the old screw bearing platen, while it has all the weaknesses of the latter. The center of the platen is still unsustained, while the corners have even less support than when screw bearings were used, and on all large sizes have a tendency to twist; moreover, the slides must wear rapidly under the excessive friction, and the platen at once loses its firmness, as there is no provision made to take up the wear. Again, the slides when at the point of impression bear at the ends of the platen, midway between top and bottom, and in working a full form or even a few lines at the *bottom* of the chase, there is an unavoidable tendency to tip the platen. But one chief objection is to the means employed to adjust the impression *behind* the bed. A bed must be weakened very much if it is made



IMPROVED GOLDING JOBBER, WITH AUTOMATIC
BRAYER FOUNTAIN.

adjustable, and the inconvenience and difficulty of getting at the back of the bed to adjust it is apparent. Let the pressman get the bed out of "true," which is as easy as falling off a log, and the result is unequal wear on the type, which is actually if not perceptibly forced off its feet with disastrous results, especially on fine faces. This method of adjusting the impression is, in fact, a more potent ally of the typefounder than our ancient enemy the planer. As before stated, it seems to us, that it is

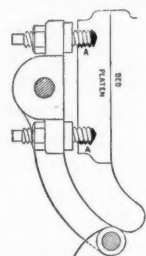


Fig. 1. Screw-bearing Platen.

necessary to have an immovable and unyielding bed, and as we cannot get this combined with adjustment, we prefer an adjustment somewhere else. All job presses, except the Golding Jobber and the new style Gordon just described, have screw-bearing adjustments to their platens, and in this respect are imitators of the old style Gordon. While admitting all the defects of the screw-bearing platens, they have failed to make any radical change for the better. The

patented platen of the Golding Jobber is constructed on an entirely original plan, with a view to overcome the difficulties spoken of, and whether this has been accomplished is left to the decision of the candid reader.

This platen is shown in Fig. 2, and is secured on a solid frame which is operated for purposes of impression from the *positive* center F below the bed, as are nearly all presses of the Gordon class. In these frames are cut two grooves D D in which are accurately fitted two series of solid wedge-shaped metal bearings, so laid that they present on top a perfectly square surface. These extend the full length of the platen, supporting it at every point, as shown in the sectional view of platen in Fig. 3. The platen is thus practically as well sustained as though the platen was cast with the frame that holds it. The platen is firmly secured to the frame over these wedges by a draft screw passing from center of platen through the platen frame, and any lateral movement is prevented by the bearings E in Fig. 2 and also shown in Fig. 3. Thus, for *purposes of impression*, an unyielding mass is opposed to the type form. Having gained the necessary strength, this invention affords the best method of adjusting impressions yet devised. In Fig. 2, D D represents the lower wedges, with their thick ends abutting against the right hand side of frame which holds the platen, while C C are the upper wedges, with their thin ends abutting on the right of platen over and in contact with the wedges D D. The thick ends of the under wedges D D are controlled by two thumb screws which pass through the side of the platen frame as shown in Fig. 3. Now, by screwing these under wedges inward the platen is raised equally at all parts without affecting the solidity of the resistance under impression, while by sliding them outward the impression is reduced. It is as simple as locking two Hempel quoins together. Compare this plan with the necessity of changing four screws by means of a wrench. The platen of the Golding press may be adjusted in two minutes to take in a $\frac{1}{4}$ inch board after printing tissue paper. No wrench is required, the fingers doing the work with ease, and it

affords the utmost nicety of adjustment. The set screws shown under the thumb screws in Fig. 3 have an independent movement, and the wedges they control may be used for raising or depressing any of the corners of the platen. The lower wedges are placed fully as low as the chase, so that there is no possibility of tipping the platen even when printing a line locked against the bottom of the chase.

Combined with the solidity of bearing and nicety of adjustment given by this platen, is an entirely novel plan for

THROWING OFF THE IMPRESSION.

The original of the Gordon class had no throw-off, but this is an absolute requirement of any press claiming to be of the first class. Nothing so well exhibits the paucity of inventive faculty among builders of platen presses as the common method of throwing off the impression. When the problem of making platens adjustable presented itself it was done by either weakening the platen or abandoning adjustment there and weakening the bed. So, when the necessity of a trip to the impression presented itself, they proceeded to gain the advantage at the expense of the draw bars, which are chief strain-bearing parts. The common plan of throw-off is by means of eccentrics in the draw bars. This necessitates a certain degree of play and several hundred percent of undue wear; affects the rigidity of the impression, and induces back-lash and its attendant evils. As the speed of the press is increased the evils multiply, and this is the reason that so many presses which do good work at a moderate speed fail to do it at a high speed. The whole press is in fact thrown out of gear to prevent the platen from reaching the type. Truly, in this case, the mountain comes to Mohammed. In the natural course, Mohammed has perforce, to go to the mountain. Let us see how it is done. The thin end of the thick wedges C C Fig. 2, abut at their thick end on the left hand of the platen. Look at the upper wedges in Fig. 3, and observe a small link attached to the thick edge of upper wedge. This link is connected with a shaft running the full length of the platen, and controlled by the handle shown at left hand of Fig. 3. The handle is convenient to the hand of the operator; and by depressing it the upper wedges are slid back, lowering the platen sufficiently to prevent impression; and by throwing the handle up the platen resumes its place. The platen, which is the only part which gives impression, here is the only part affected when impression is not needed. Can anybody give a common sense reason why the whole press should be thrown off to prevent the platen from printing? The throw-off in the draw bar is a clumsy make-shift.

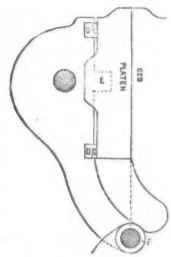


Fig. 2. Wedge-Bearing Platen.

Press builders widely differ as to the best means of getting the

MOVEMENT OF THE PLATEN AND IMPRESSION.

Space forbids us enlarging on this subject, but none of the first-class presses, such as the Universal, Peerless, and Gordon, have a positive movement of the platen. In the

Universal the platen is slid forward, on what is termed a rocker seat or slide-way, and the manufacturers admit that wear of slide-way will affect the register. The platen being drawn by draw-bars in line with its center, lugs have been devised to prevent its tipping at top and bottom, and the impression is affected by the wear of these lugs. Wear, of course, will affect any press in time, but slides, being liable to unequal wear through grit falling on them and from unavoidable friction, wear out very quickly. The new style Gordon has a sliding movement of a still more aggravated character, of which mention is elsewhere made. The Peerless has a toggle movement, operated by a goose-neck. We object to the goose-neck because there is too much friction, speedy wear and no means of taking it up. Now these presses are all first-class presses, and it is strange that their inventors should have resorted to cams, eccentrics, goose-necks and slides, which are in our opinion the poor relatives of good mechanism. They consume power and time. The platen of the Golding Jobber is swung from a positive center below the bed, on a line from the face of the type. It is brought forward by the revolution

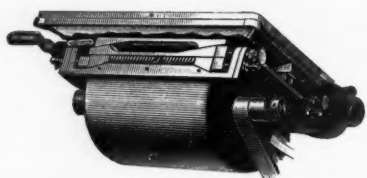


Fig. 3. Sectional view of Wedges in Wedge-Bearing Platen.

of the gear-shaft, the draw bars being of steel, and fitting positively to the main impression shafts which are of steel, one being back of the center of the platen at point of impression, and the other running through the back of the frame of the press. When on the impression these steel shafts all line, and as the gear shaft revolves the platen must go forward, and there is not a possibility of back-lash. This method, it is believed, is based on true mechanical principles, and those who have seen the Golding Jobber at work must have been struck with its noiseless movement even at the highest speed, which is proof positive that no mechanical principles have been violated. Noise in so small a machine as a platen press is evidence of some mechanical principle outraged; the result of some makeshift. No better illustration of this is afforded than by the best watches and the giant engines of large ocean steamers, extremes in power, but alike noiseless.

INK SUPPLY AND DISTRIBUTION.

In this most important feature press builders seem to have exhausted all their resources. The fact is that presses of the Gordon class are so constructed as to render any great improvement for supplying ink to the disk impossible. Meanwhile the hand-brayer of our daddies remains with us to supply the means our press builders have failed to give us. As before stated there are two theories of ink supply and distribution. Viewed from an economical standpoint the revolving ink disk cannot be excelled. Easy running and rapidity are prime requirements to the majority of printers, and absolutely essential to the great number who do not use power. The most ardent advocates of cylindrical distribution cannot deny that all its good points are obtained by sacrifice of speed, and ease of running, and a resultant friction which makes it dangerous, even

if it were possible to run at a high speed. Without detracting from the merits of the press which has adopted cylindrical distribution, it is inferior as a money-making machine to the best presses of the revolving disk class. Hitherto the printer has had his choice between the Scylla of good distribution, with slow and laborious work, and the Charybdis of quick and comparatively easy work with defective ink supply; and the defect lay in the want of efficient means to keep a regular supply of ink on the disk rather than in any deficiency in the distributing power of the revolving disk. To supply ink to an ink disk with a hand-brayer consumes at least ten percent of working time, as it must be applied every twenty impressions to keep up uniformity of color, and two or more impressions are lost at every application. If the press is run by treadle it must be stopped every time the brayer is used, or a helper must stand by to apply it, in either case entailing a waste of time and muscle. With all this expense an even distribution is not attained, it being impossible in the nature of the case. The only feasible way out of the dilemma, seems to be to combine with the revolving ink disk some method for regularly supplying it with ink uniformly distributed over its whole surface, and which will not retard the speed of the press. This has been attempted by nearly every press builder, but the majority have traveled no farther than the common small fountain applying ink to the end of the top form roller. It has proved a valuable ally to job presses and, in default of a better article, has been widely used. Nevertheless, it is needless to remark to printers that it is unsatisfactory except on very small work. The manufacturers of the new style Gordon have placed a supply fountain below the bed, touching the entire length of the lower form roller, which has to pass over the form before the crude ink can be distributed. Besides being misplaced, it is most conveniently situated for catching all the oil, paper-waste and dirt created by the press. The manufacturers of the excellent Peerless Press, have reversed the order by suspending a similar fountain over the ink disk, so that the top roller touches its entire length. We show a diagram of this fountain in Fig. 4 in which H is the fountain roller,* controlling the ink supply from a reservoir back of it. The ink is conveyed to the disk by contact between the upper form roller and the iron fountain roller H. When in contact a thin strip of undistributed ink is deposited on the form roller, and as the latter returns toward the form it has to revolve half way round before it deposits the ink received on the disk at I; it then moves over the disk a distance equal to its circumference before it deposits a second thin strip of ink, and passes on to the form with the ink received at the fountain practically undistributed, one roller having touched the plate (at most) twice while the lower rollers have received no ink at all at that impression; and not until the two lower rollers return to the disk, having passed over the

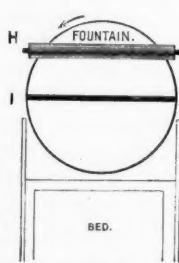


Fig. 4. Diagram of Peerless Fountain, showing at I the area of ink supply given to the disk at one impression.

*Since this was drawn this fountain has been supplied with a second iron roller.

form twice, is there any distribution of the ink. To overcome this self-evident difficulty two large roller trucks or wheels are sometimes supplied for use on the upper form roller, so that while it conveys the ink from the fountain it does not touch the form, thus losing one-third of the ink supply on the form, but preventing undistributed ink from touching it. As shown in Fig. 4, when the area of the disk is two hundred and twenty-seven square inches this fountain supplies four square inches at each impression, or less than two percent.

Fig. 5 shows the combination of disk and cylindrical distribution as now used on the Golding Jobber. It is simply an automatic hand-brayer, distributing the ink it receives from the fountain directly on the disk at each impression, avoiding all contact with the form rollers. Over the right hand side of the disk, and extending exactly half way across, a large cylinder is suspended on a strong standard, secured to the body of the press; on top of the cylinder is a reservoir for holding ink, the face of the cylinder being the bottom of the reservoir, and the ink is let out or kept in, in precisely the same manner as on most cylinder press fountains by a knife pressing against the cylinder, and regulated by a series of thumb-screws. The cylinder is made to revolve by a steel rod connecting with the frame which holds the rollers, and operating a ratchet wheel. As the form rollers descend over the form the cylinder revolves from one-fourth of an inch to two inches, as may be desired, ample means being given for regulating. Fitted into the arms on which the cylinder and fountain are suspended is a small steel shaft, on which is hinged a frame, having connected with it two flexible steel arms, which hold a brayer roller, made of roller composition, exactly half the length of the form rollers. This frame and the rollers are operated by the second steel rod, as shown in Fig. 5, similar to that which moves the cylin-

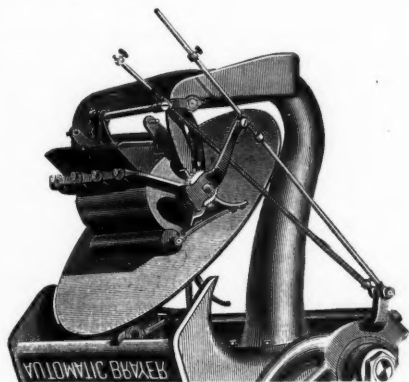


Fig. 5. Automatic Brayer Fountain, showing the Brayer when distributing on the fountain cylinder.

der. Now, as the platen is receiving the sheet, and the form rollers are inking the form, the fountain cylinder revolves away from the pressman, and the brayer roller advancing forward on the cylinder distributes the ink liberated from the fountain. The movement of the brayer on the cylinder and the rotation of the cylinder occur simultaneously, covering the entire surface of the brayer. When the form rollers return toward the disk the brayer leaves the cylinder and distributes itself on the disk,

depositing a full supply of distributed ink over a surface of eighty square inches on a quarto press, touching the disk at its first contact midway between top and bottom, and traveling upward about half an inch in advance of the form rollers. Over this liberal area thus covered the three form rollers pass, each receiving its supply, and having ample space to thoroughly distribute it. The result is shown in Fig. 6 at K and N, which represents the ink supplied and thoroughly distributed at one impression of the Golding Jobber, being one hundred and four square inches on a disk of an area of two hundred and twenty-seven square inches, or almost fifty percent. Nor is this all. The heavy lines on a form strip the ink off the form rollers as they descend, and in returning they take from the form some of the ink previously deposited. To overcome this, the inventor of the automatic brayer fountain has devised a secondary ink plate, located under the bed, and called a Duplex Distributor. It is a semi-cylindrical plate placed below the form, and secured to the frame of the press. It is connected with the gear shaft by a cam traveler, which gives the plate a lateral movement, the displacement, as represented in Fig. 6 at O and P, being actually from nothing to half an inch. Here the roller gets a fresh distribution, and the plate acting as a roller changer causes a new surface of the roller to present itself on the type at the second inking when ascending. The black section of the duplex distributor represents the ink supplied to it at one impression, and increases the total surface inked at one impression to one hundred and sixty square inches, when the disk is two hundred and twenty-seven square inches.

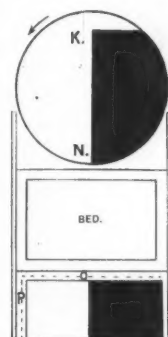


Fig. 6. Diagram showing area of ink supply given by Automatic Brayer Fountain on ink disk and duplex distribution at one impression.

Is it possible to accumulate at will a heavier body of ink on a revolving ink disk at the center than at the sides or at either side than at the center and opposite side? In presses of the Gordon class it is impossible. In cylindrical distribution it is possible. No system of ink supply and distribution can be complete which does not provide means for supplying an adequate body of ink on heavy parts of a form without putting too large a supply on the lighter parts. The inventor of the Golding Jobber has demonstrated that this important feature of ink supply is entirely practicable under his system of combined disk and cylindrical distribution. *This is why the fountain extends only over half the plate.* Had it extended clear across it would have been obviously impossible to do more than evenly supply the whole form. The ink disk of the Golding Jobber is regulated in its movements by a simple device which enables the pressman to control the extent of its revolutions; and by regulating the outflow of ink from the fountain, by the thumb-screws shown in Fig. 5, to correspond with the movement of the disk, ink is accumulated in greater volume at any point of the disk without affecting those parts which require less ink.

This fountain has now been in the market three years,

and has been demonstrated to be all that is claimed for it. To those who have used it, it has become a positive necessity. It is constructed so that in a few seconds it can be taken apart for cleaning, and while in operation the supply from the fountain may be stopped instantly without stopping the press or losing an impression. The ink reservoir is closed with a lid to keep the ink clean and prevent waste. If it is necessary to use colored ink on the press for a few impressions, the fountain can be rendered inoperative in a few seconds without removing any part of it, and only the ink disk need be cleansed, as on a press without a fountain. Finally the resistance of the fountain is almost imperceptible, the steel rods being amply sufficient to operate the whole arrangement.

The Golding Jobber is as nearly a silent press as can be made. Every movement is positive, and at the highest rate of speed it runs as smoothly as at a slow rate. The quarto size is capable of printing three thousand impressions per hour, and this has frequently been done on it in Boston. The inventor has found it necessary to make but few changes in the principle of his press since he first conceived it, in 1880, but necessarily the first few years were largely experimental, and the mistake was made of building it too light to stand the powerful impressions it is capable of giving. That this error has militated against the success of the press is acknowledged, but these defects have been remedied, as the experience of the past two years amply proves; and it is now inferior to none in strength and durability. Those who desire to examine the presses may find them on exhibition with Marder, Luse & Co., Chicago; Union Typefoundry, Chicago; Benton, Waldo & Co., Milwaukee; Central Typefoundry, St. Louis; and Allison & Smith, Cincinnati, and at the manufactory 183 to 199 Fort Hill square, Boston, Mass. The inventor is himself a practical printer of large experience, and that he fully comprehends the needs of the craft is proved by his success in other directions, such as the Little Giant Lead and Rule Cutter, the Tablet Press, and the Standard and Job Composing-Sticks, not to mention many other articles.

Every manufacturer and dealer has had it more or less demonstrated that printers are, as a rule, a most conservative class, holding on to the things of the past. In no way is this better proved than by the attitude of that large body of excellent printers who make a fetish of a press now abandoned by its originators, and manufactured by the merest copyists. These printers, having operated the presses referred to for several generations, and commencing at a time when it really was the best press made, still adhere with unconquerable loyalty to their first love; in fact, they will not allow the old love the privilege of dying when she wants to. Can the most vivid imagination in things mechanical allow that this ancient and honorable press is other than very second-class? We think not. We admire the loyalty of these printers, but fear they are the losers by it. We commend to their consideration the proverb, "Prejudice is a thief, and will rob you of many good things," and if any of this minority or of the progressive printers who constitute the larger majority are by this article made investigators, our object has been attained.

Written for THE INLAND PRINTER.

AN OCTOGENARIAN'S REMINISCENCES.

SIXTY YEARS AT THE BUSINESS.

BY CHARLES BRIGHAM.*

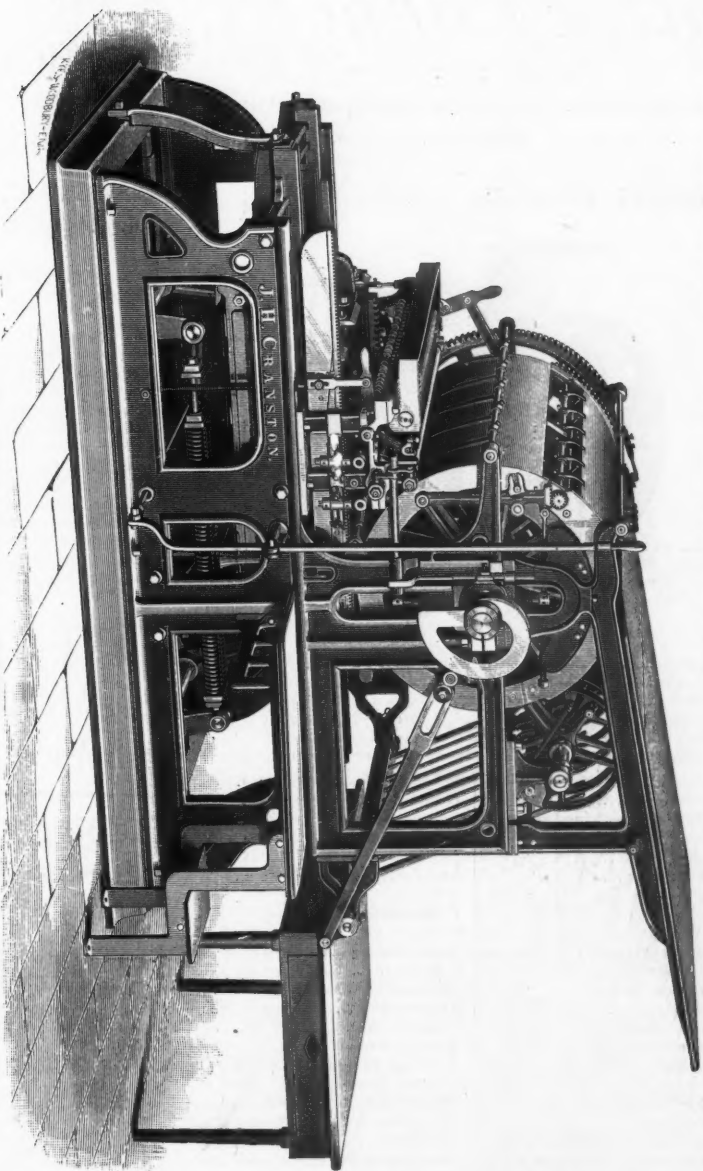
WHEN asked by the editor of THE INLAND PRINTER to contribute a series of articles, bringing up reminiscences of my three score years' connection with the printing trade, I felt very much inclined to refuse, for I never had any experience of the kind before, but, considering the matter, concluded to write a sketch of what has taken place in years that have passed.

Sixty years ago, in the fall of 1824, being tired of the monotony of farm life, I left my home in the town of Marlborough, Massachusetts, and went to Worcester, a distance of sixteen miles, and commenced working in the office of the *Massachusetts Spy*, which was conducted by William Manning for John Milton Earle. The principal class of work was the newspaper and jobbing, which was done on one Ramage press, with buckskin balls. This office was originally established in Boston, March 7, 1771, by Isaiah Thomas, and was, on account of revolutionary troubles through the country, suppressed, and afterward secretly removed to Worcester, May 3, 1775, where it has been published continuously to the present time. After finishing my time with Mr. Manning I worked for a time on the *National Aegis*, published by Rogers & Griffen, and at that time worked on the histories of the county towns, then being edited by William Lincoln, Esq. The Wells press with buckskin balls was used in the office at that time.

When I left Worcester I went to Boston, where, among other new things in the progress of improvement in the business, I saw and learned how to make and use printers' rollers, just then invented. Besides working in various printing-offices in Boston, I worked at the University Press in Cambridge, which printing establishment has become celebrated for the beauty and accuracy with which it sends out classical books in the ancient and modern languages. At the time I worked there they printed a "Chart of Biography," thirteen and a half by twenty-one inches, running from 800 years B.C. to 1900 A.D., the preparation and printing of which cost about \$500. A copy of it I still have in my possession. I afterward returned to Boston and worked at Jenks' printing-office in Bromfield lane. About this time applications were made for eight pressmen who were acquainted with using the rollers, and three compositors, to go to Charlottesville, Virginia, to print Thomas Jefferson's "Memoirs and Correspondence," in four volumes, and on account of my knowledge with the rollers I obtained a situation as pressman. We left Boston, November 7, 1828, on board of the brig, *Enterprise*, and sailed down the harbor in fine style, past Fort Independence and other places of interest, passing the lighthouse about dark, when we soon turned in for the night to take our first nap on the broad ocean. We encountered a severe storm, lasting about three days, but finally arrived safe, being eighteen days from Boston to Charlottesville.

*Written in Philadelphia, Sept. 26, 1885, my seventy-ninth birthday.—C. B.

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1 6 x 10 Columbian, Lever,	27	1 Hand Stitching Machine,	25
1 Evans Rotary, 4 x 7, self-inker,	40	1 14½ x 20¼ Star Press,	230
1 10 x 15 Peerless Press (with steam),	250	1 10 x 15 Standard,	150
1 9 x 12 Nonpareil, inside chase,	200	1 6 x 10 Prouty, with Steam,	110
1 7 x 11 Gordon Press,	135	1 8 x 12 Gordon, New Style, with Steam,	200
1 7 x 11 Gordon Press, old style,	145	1 8 x 12 Columbian,	45
1 8 x 12 Gordon Press, new style,	200	1 13½ x 18 Nonpareil, treadle and crank,	175
1 7 x 10 Ruggles Press,	75	1 Hoe Stop-Cylinder, 31 x 46,	600
1 6-column Hand Press,	150	1 30-inch Anson Hardy Paper Cutter,	150
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W. P. THOMPSON,
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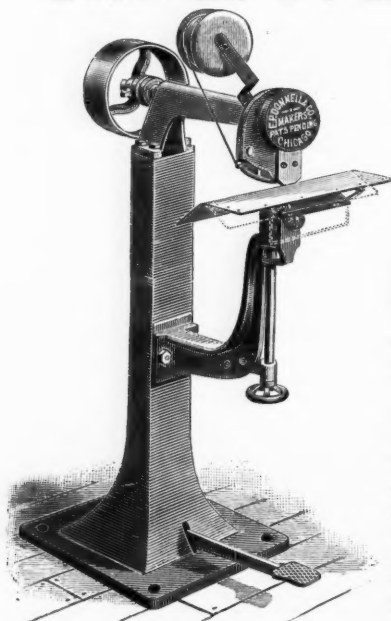
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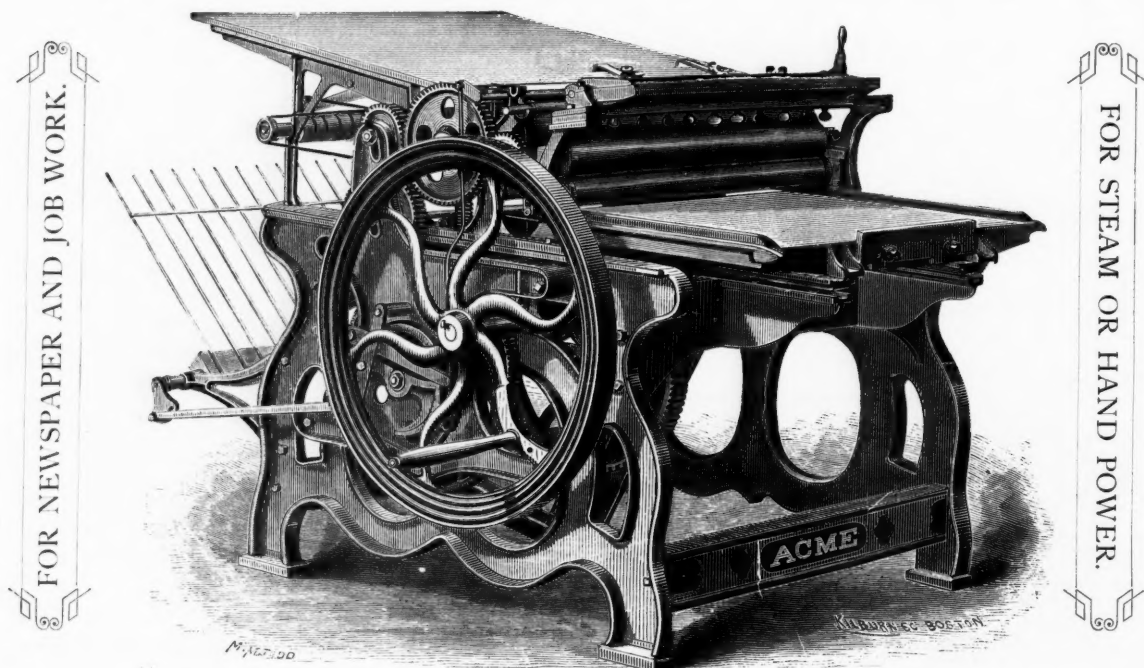
NEW YORK,

Who makes a variety of styles, from the Best to the Cheapest.

SEND FOR CATALOGUE OF LATEST STYLES AND PRICES.

THE ACME

Improved Two-Revolution Press.



THESE Presses combine, in a thoroughly perfected machine, many features whose value will be readily appreciated, including several which have never before been practically developed by any cylinder press. Among these features are:

COMPACT AND FIRM IN ALL ITS ADJUSTMENTS.

THE MOST PERFECT TWO-ROLLER INK DISTRIBUTION.

SPEED COMBINED WITH PERFECT REGISTRATION.

Feeder can suspend action of the ink fountain.
Impression adjustable while the press is in operation.
Whole form accessible for correction on the press.
Quiet operation, without jar.
Great saving in wear of type.
Convenient height of bed.
Form inked at both ends.

Slow movement of bed during the impression, and quick return.
Impression may be suspended at will, or locked in suspension.
Suspends the grippers, guides and ink.
Ink can be distributed without inking form.
Unlimited rolling of the form.
Composition rollers interchangeable.
All rollers self adjusting.

The present Hand-Power Acme Presses, fully equal, in capacity for fine work, the FIRST-CLASS two-roller presses of other kinds, and they run much easier, and are also capable of higher speed by steam than any other cylinder press manufactured for country offices or for hand operation. The convenience of changing from Newspaper to Poster and Job work is unequaled.

CIRCULARS, WITH SIZES AND PRICES, WILL BE SENT ON APPLICATION.

C. C. CHILD, Manufacturer,

Fifteen Sizes and Styles of Two-Revolution Cylinder
Presses, and Forty Sizes and Styles of ACME
Self-Clamping Paper Cutters.

No. 64 FEDERAL STREET,

BOSTON, MASS.

ACME LEVER SELF-CLAMPING CUTTER.

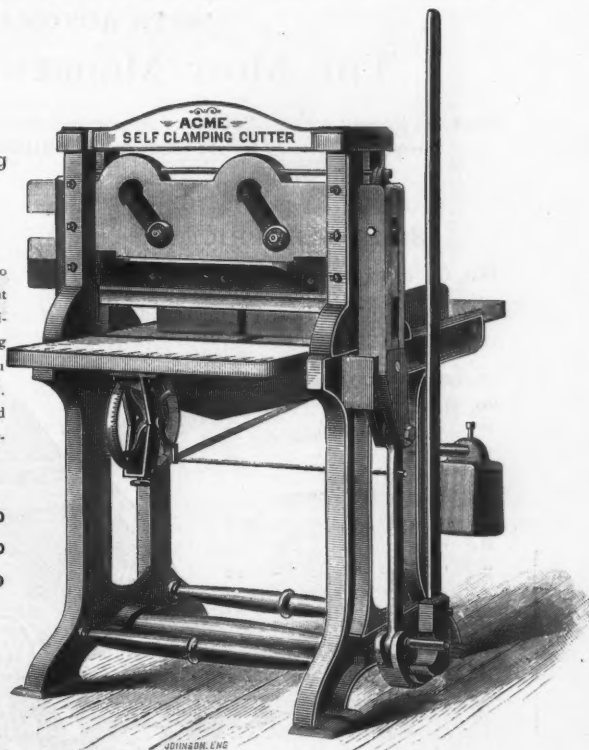
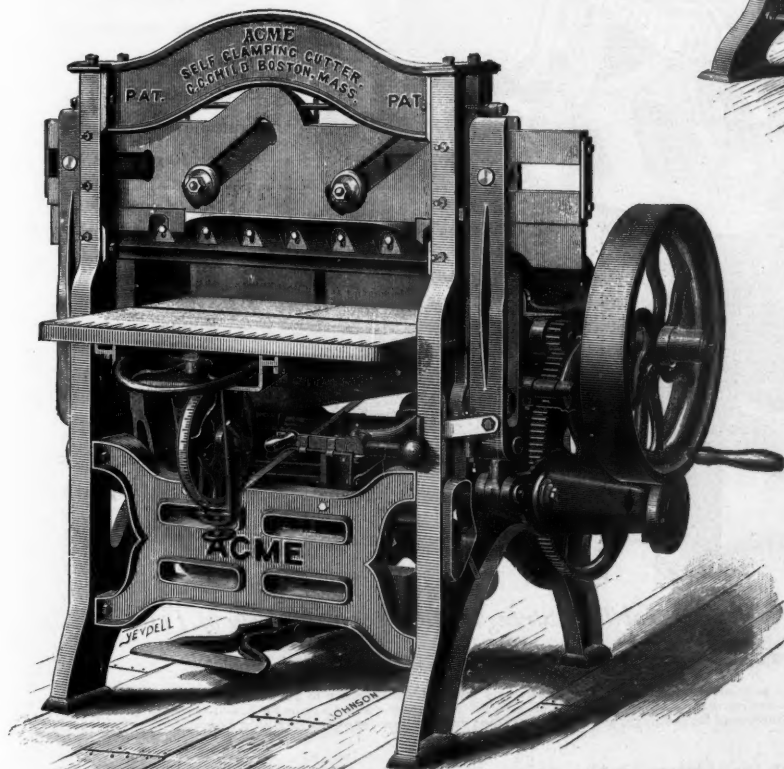
SAVES TIME AND IS VERY CONVENIENT.

Rapid, Durable and Strong.

This Cutter has the Unrivalled Band Wheel for Moving the Back Gauge, Round Cutting Strip, giving More than Fifty Cutting Surfaces.

The annexed cut represents a 30-inch Lever Cutter. It is built very strong, there being 500 pounds more iron than in any other lever cutter of the same size. The table is at a convenient height; the lever is within easy reach, and does not necessitate the operator's changing his position from the front of the table. It has back gauges on both sides. The lever is long, giving ample power for the largest cuts, and is made entirely of wrought iron. There are no springs or segment gears to break or get out of order. The table extends back of the knife thirty inches. Less room is required, owing to the advantageous position of the lever. No extra room is required at either side, or at the back of the machine. This Cutter is built with as much care as the higher-priced machines, and is the best constructed and most improved Lever Cutter made.

Price, 30-inch,	\$200 00
" 32 "	225 00
Skids and carting,	5 00



ACME Foot and Self-Clamping PAPER CUTTER.

It will be seen from the cut that the manufacturer of the **BEST SELF-CLAMPING CUTTER IN THE WORLD** has advanced still another step in combining both Foot and Self-Clamping in the same machine.

This is one of the most valuable improvements ever put on a paper cutter, as it enables the operator to bring the clamp down to a mark, or to hold an unstable pile quicker and easier than it can be done on any hand-clamping machine made, or to instantly add to the pressure put on the work. It leaves the self-clamping part entirely free to clamp the work, releasing the operator of all the hard work, and, adding to the speed work, and can be cut even on a Self-Clamping Machine. When not wanted the treadle stays out of the way, and in no way interferes with the self-clamping. The cut also shows a new arrangement of the unrivalled band for moving the back gauge.

These machines can be made in any style or size that the Acme Self-Clamping Paper Cutters are made.

Price, 32-inch,	\$575 00
" 36-inch,	675 00
Skids and Cartage,	10 00

Perfect in its Self-Clamping.

SEND FOR DESCRIPTIVE CIRCULAR TO

C. C. CHILD, 64 Federal St., Boston, Mass., U. S. A.,

Manufacturers of Forty Sizes and Styles of "ACME" SELF-CLAMPING PAPER CUTTERS, and Fifteen Sizes and Styles of TWO-REVOLUTION CYLINDER PRESSES.

PRICE, \$200.00 to \$1,600.00.

THE IMPROVED GOLDING JOBBER

WITH AUTOMATIC BRAYER FOUNTAIN.

THE MOST MODERN OF JOB PRINTING PRESSES.

Combines in itself the best features of all existing job presses, lacking in not one convenience known to job press builders; and is unequaled for doing the **BEST** work in the **SHORTEST POSSIBLE TIME**, with the least expenditure of labor.

SIZES AND PRICES.

No. 6, 8x12, inside chase,	-	\$200
" 7, 10x15, " "	-	275
" 8, 12x18, " "	-	350

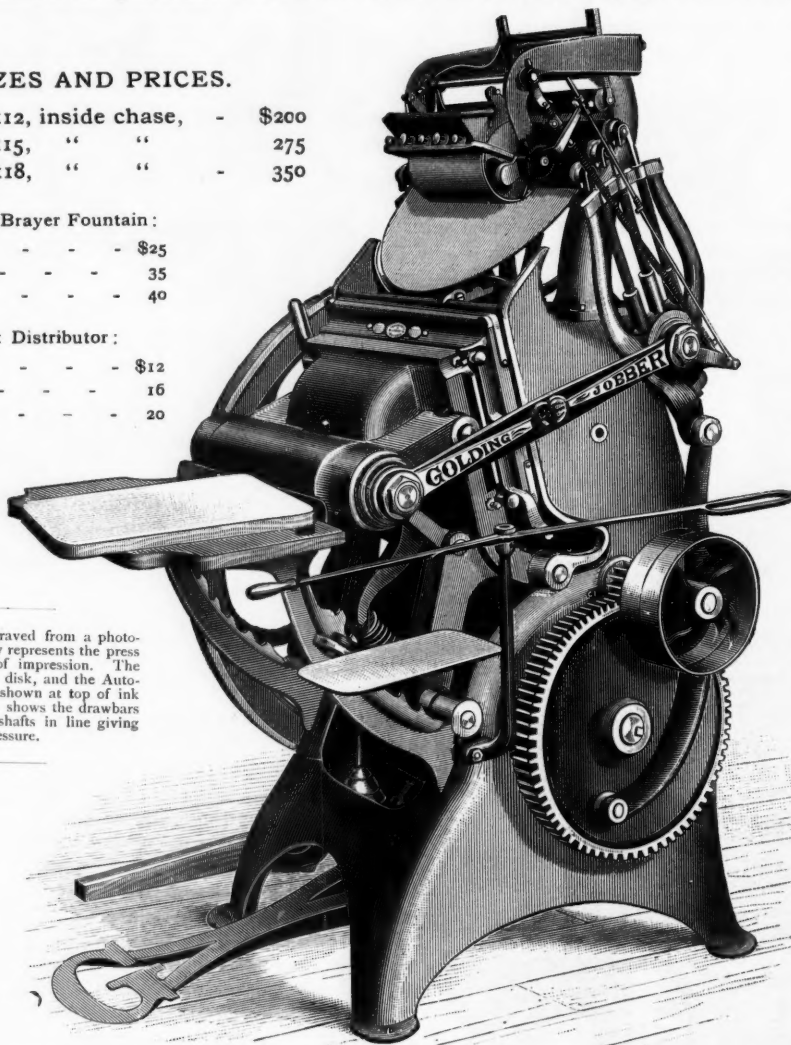
Automatic Brayer Fountain:

For No. 6,	-	-	-	\$25
" " 7,	-	-	-	35
" " 8,	-	-	-	40

Duplex Distributor:

For No. 6,	-	-	-	\$12
" " 7,	-	-	-	16
" " 8,	-	-	-	20

This cut, engraved from a photograph, accurately represents the press at the instant of impression. The rollers are on the disk, and the Automatic Brayer is shown at top of ink disk. This also shows the drawbars and impression shafts in line giving an unyielding pressure.



Special & Patented

POINTS OF SUPERIORITY.

Automatic Ink Supply,
Duplex Distributor,
Roller Changer,
Adjustable Movement of
the Ink Disk,
Chromatic Attachment,
Positive Movement,
Solid Platen Bearings,
Instantaneous Impres-
sion Regulators,
Quick and Easy Throw-
off,
Adjustable Grippers,
Solid Frame,
Steel Shafts, Studs and
Draw Bars,
Noiseless Movement,
Easy "Kick,"
The Greatest Speed yet
attained on a platen
press of its size.

Unequaled for Solidity of Construction, Durability, Strength, Speed and Quality of Printing.

STRONG CLAIMS BACKED UP.

WE CLAIM for the Improved Golding Jobber that it is in all points equal to any job press yet invented, and superior to all in speed, noiselessness, distribution of ink, ease in running, solidity of impression and facilities for making ready quickly. WE GUARANTEE the press to be all we claim for it, and are prepared to place it in competition with any press in the market, and if it is found inferior to the competing press or presses, the purchaser may return it within thirty days and have his money refunded, the return freight charges to be paid by us.

These presses may be seen in operation in the salesrooms of Marder, Luse & Co., Chicago; Union Typefoundry, Chicago; Central Typefoundry, St. Louis; Benton, Waldo & Co., Milwaukee; Allison & Smith, Cincinnati, and at warehouse of the inventor and manufacturers,

GOLDING & CO., BOSTON, MASS.

SEND FOR OUR ILLUSTRATED CATALOGUE OF PRESSES, TOOLS, MATERIAL AND TYPE.

JAMES L. LEE, President.

PAUL SHNIEDEWEND, Sec. & Treas.

Shniedewend & Lee Co., Printers' Warehouse, 393-305 Dearborn St. and 46-48 Third Ave., CHICAGO.

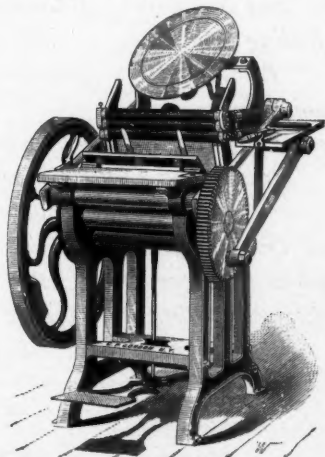
WESTERN AGENTS FOR
MacKellar, Smiths & Jordan,
JOHNSON TYPEFOUNDRY,
PHILADELPHIA.

We have now on hand a large and most complete stock of TYPE, BORDERS, CUTS, RULES, ETC., including all the latest productions of this celebrated Foundry, and hope to be favored by all the old patrons of MACKELLAR, SMITHS & JORDAN, and many new ones. Promptness a special feature.

SHNIEDEWEND & LEE CO.

Telephone 508. P. O. Box 422.

THE New Style Gordon Press.



Five Sizes Made: 13x19, 11x17, 10x15, 9x13 & 8x12,
(INSIDE THE CHASE).

CIRCULARS ON APPLICATION.

GORDON PRESS WORKS

99 Nassau Street, NEW YORK

CHALLENGE

JOB PRESS.

FIRST-CLASS IN ALL RESPECTS.



ACKNOWLEDGES NO SUPERIOR.

PRICES ON CARS AT CHICAGO:

SIZE OF PRESS.	With Throwoff.	Without Throwoff.	Boxing
Eighth Medium, 7 x11 inside Chase, -	\$200 00	\$185 00	\$5 00
Eighth Medium, 8 x12 " " -	225 00	210 00	5 00
Quarter Medium, 10 x15 " " -	300 00	280 00	8 00
Half Medium, 13 x19 " " -	400 00	375 00	8 00
Half Medium, 14 x20 1/2 " " -	450 00	425 00	10 00
Half Super Royal, 14 1/2 x22 " " -	500 00	475 00	10 00

Steam Fixtures, \$15. Fountain, \$25. Overhead Steam Fixtures, \$15 to \$25.
With each press we furnish 3 chases, 6 roller stocks, roller mold, gripper and impression wrench, and brayer. Send for circulars giving full particulars, and do not fail to give the "CHALLENGE" careful consideration when in need of a new press.

—MANUFACTURED BY—

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303-305 DEARBORN STREET, CHICAGO, ILL.

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ELECTROTYPERS,

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Photo-Engravers,

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—AND—

2, 4, 6 and 8 CUSTOM HOUSE PLACE,

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We now have on hand ADVANCE SPECIMEN SHEETS of

CALENDARS FOR 1886,

Which we will forward on application.

Our COMPLETE LINE OF SPECIMENS are now ready.



MEDALS AWARDED THE SANBORN MACHINERY.

OUR LIST OF MACHINERY
—FOR—
Bookbinders, Printers, Lithographers
—AND—
PAPER-BOX MAKERS

—INCLUDES—

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|--------------------------------------|--|
| <i>Paper Cutting Machines,</i> | <i>Wood Frame Card Cutters,</i> |
| <i>Book Trimming Machines,</i> | <i>Iron Frame Card Cutters,</i> |
| <i>Paper Cutting Presses,</i> | <i>Rotary Card Cutters,</i> |
| <i>Knife Grinding Machines,</i> | <i>Grindstone Frames,</i> |
| <i>Iron Standing Presses,</i> | <i>Gilding Presses,</i> |
| <i>Stamping Presses,</i> | <i>Perforating Machines,</i> |
| <i>Embossing Presses,</i> | <i>Steam Glue Heaters,</i> |
| <i>Embossing and Inking Presses,</i> | <i>Steam Glue Jackets,</i> |
| <i>Smashing Machines,</i> | <i>Copper Glue Kettles,</i> |
| <i>Iron Table Shears,</i> | <i>Bookbinders' Type Cabinets,</i> |
| <i>Rotary Board Cutters,</i> | <i>Paging and Numbering Machines,</i> |
| <i>Sawing Machines,</i> | <i>Ruling Machines,</i> |
| <i>Job Backers,</i> | <i>Lithographers' Embossing Presses,</i> |
| <i>Stabbing Machines,</i> | <i>Wood Frame Shears,</i> |
| <i>Roller Backers,</i> | <i>Paper-Box Makers' Rotary Board Cutters,</i> |
| <i>Bevelling Machines,</i> | <i>Scoring and Cutting Machines,</i> |
| <i>Case Bending Machines,</i> | <i>Square Corner Cutters,</i> |
| <i>Case Smoothing Machines,</i> | <i>Round and Oval Cutters,</i> |
| <i>Round Corner Cutters,</i> | <i>Thumb and Finger Hole Cutters,</i> |
| <i>Back Forming Machines,</i> | <i>Corner Cutting and Scoring Machines,</i> |
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IN THEIR VARIOUS SIZES AND STYLES.

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GEO. H. SANBORN & SONS,
69 Beekman St. NEW YORK.

MANUFACTORY — Standard Machinery Co., Mystic River, Ct.

THE INLAND PRINTER,

A TECHNICAL JOURNAL, DEVOTED TO THE ART OF PRINTING.

Published Monthly by

THE INLAND PRINTER COMPANY,

2 TAYLOR BUILDING, MONROE ST., CHICAGO.

H. O. SHEPARD, PRES. - - - JOS. PEAKE, SEC.-TREAS.

OFFICE OF THE EDITOR, ROOM 1, 191 S. CLARK ST.

A. C. CAMERON, EDITOR.

SUBSCRIPTION RATES.

One dollar and a half per annum in advance; for six months, Seventy-five Cents; three copies, Fifteen Cents.

To countries within the postal union, fifty cents per annum additional.

THE INLAND PRINTER will be issued promptly on the tenth of each month. Subscriptions, payable in advance, may be sent to the Secretary by postoffice order or in currency at our risk.

THE INLAND PRINTER will spare no endeavor to furnish valuable news and information to those interested professionally or incidentally in the printing profession, and printers throughout the West will confer a great favor on the Editor of this Journal by sending him news pertaining to the craft in their section of the country, particularly individual theories and experiences of practical value.

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	ONE MONTH.	THREE MONTHS.	SIX MONTHS.	TWELVE MONTHS.
One inch	\$ 4 00	\$11 00	\$ 21 00	\$ 38 50
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One-half page	20 00	56 00	105 00	190 00
One page	35 00	90 00	170 00	325 00

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CHICAGO, OCTOBER, 1885.

DON'T SKIP THIS.

WE want copies of THE INLAND PRINTER of November, 1883, issue, and also February, April and September, 1884. We will make a mutual exchange with any one having either of these numbers to spare, or pay the cash price asked; we are extremely desirous to obtain them to complete broken files and if our friends will see if they can oblige us the favor will be greatly appreciated.

OUR THIRD VOLUME.

WITH pardonable pride we herewith present to our readers the first number of the third volume of THE INLAND PRINTER. The favor with which it has been received in all quarters during the past year, as well as its phenomenal growth, emboldens the hope that the efforts put forth to make it a representative journal, worthy of and acceptable to the craft, have not been altogether in vain, and that the promises made from time to time have been at least in part redeemed. And while, like all enterprises of a similar character, it has had its occasional drawbacks and disappointments, the sunshine has so far exceeded the shadow that the veriest misanthrope could not express dissatisfaction with either the results or the outlook.

It has demonstrated beyond a peradventure the fact that a trade journal conducted on the principles it inculcates will be as anxiously looked for in the business office as in the composing-room; that to the progressive, rational employer it will prove an equally welcome visitor as to the employé, because their mutual interests are recognized and respected; and that when difficulties arise, as arise they will, judgment, instead of passion, should become the arbiter. And these gratifying results most assuredly merit the indorsement of every sensible man. From a technical standpoint it has commanded the support of the trade in general. Its special contributions, the productions of skilled, practical and intelligent mechanics, contain suggestions of priceless value, from which the "seeker after truth" may glean the information he desires; its engravings, illustrative of the beautiful, the triumph of science or the latest improvement, are certainly interesting features; its corps of correspondents, both in the new and old worlds, need no commendation at our hands; its competitive pages offer a field for the display of the skill of the young aspirant as well as for the matured workman; its selections, culled from all available sources, contain the latest improvements and most practical suggestions, while its varied trade reports from all sections of the country, together with its local news, notices of specimens, etc., help to make up a storehouse of knowledge, and representative of the typographic art that neither employer nor employé can afford to be without.

From a purely business standpoint, its value as an advertising medium is unrivaled, as its well filled pages from our representative manufacturers testify. Without indulging in invidious comparisons, its advantages over the specimen sheet, or the production of any particular firm or corporation, advertising their special wares, can be appreciated at a glance. Representing the interests of the trade in general, it enables the intending purchaser to scan the productions of all competing firms, and form his own conclusions in his own good time and way, without fear or favor; and the man who, under such circumstances, neglects or refuses to avail himself of the use of its columns is blind to his best interests, and pursues a penny wise and pound foolish policy.

Patrons, readers, friends, we thank you one and all for your many kind efforts in the past in its behalf, and earnestly ask your future coöperation and support. You

have helped to make *THE INLAND PRINTER* what it is, and we want a renewal of that assistance. Remember its pages are open alike to the inquirer after knowledge, and the writer able and willing to impart it. We shall aim to make it worthy of your continued confidence, and have a right to expect your material support in return.

AN ACKNOWLEDGED GRIEVANCE.

DID honor permit we should like to publish a few of the private communications received from time to time from parties relating the disadvantages under which they labor while learning, or attempting to learn, the printing trade. Though the grievances vary in character and magnitude, they agree on one point, that the present system of industrial education is essentially defective. Many of these communications are from those who, while reluctantly admitting they cannot speak from the standpoint of first-class workmen, insist that their bitter experience should give the more force to their protests, because they have been the victims of circumstances beyond their control. The charge is made by a no insignificant class, that after having served for two or three years they are uncereemoniously discharged, to make room for those who in time will be compelled to submit to a similar ordeal; by others, in many of our larger offices, that they are kept for three, and even four years on the same class of work, and denied the opportunity of proving their capacity in other features and under different management. The result is that when they come to manhood's estate, and change their base of operations, the effect of the "rut" programme in which they have moved so long is not only apparent, but painfully appreciated, because they are both handicapped and cowed. Now, it is very well for a gangrened, self-opinionated cynic to say that these grievances are imaginary; that you can't make a whistle out of a pig's tail; boys must depend on themselves, etc., etc., and emphasize his opinion by the old, stereotyped expressions, but such statements have little, if any, bearing on the subject, and certainly do not remove the wrongs so justly complained of.

We do not claim that the most careful, varied or persistent instruction under the most skillful master will develop equal ability in all learners, because in the printing, as in other trades, will be found those who have mistaken their calling; neither do we claim that equal tastes or adaptation for a special class of work will be equally displayed; but we do claim that under the system pursued in many establishments a great injustice has been done, and is being done, to the rising generation—the printers of the future—by the enforcement of the practices referred to, which are not only reprehensible but positively criminal; and as an inevitable result, the country is flooded with men whom it would be a misnomer to call printers. Youth is the seedtime of life, and as a rule when a qualification for the profession chosen has been developed, lessons taught and ideas inculcated in boyhood's days are those which characterize and shape the destiny of matured manhood. A slovenly apprentice is very apt to become a slovenly journeyman. As the twig is bent, so is the tree inclined, and when neatness, taste and

care are enforced at the proper time—*when the character is being formed*—it is safe to predict that these essentials in a good printer will characterize the future efforts of the man.

We are not referring to the inability of the average printer to do what is frequently misnamed "artistic" work, which is well enough in its place, but the lack of taste displayed on what may be styled ordinary, every day jobs, which constitute so large a proportion of his efforts. Of course as art and taste progress, technical knowledge, an education of the hand and head, becomes more and more essential, and right here is where the deficit is most apparent. For example, a number of the specimens we receive possess undoubted merit, though the points of merit vary. In some of the more pretentious the mechanical design and execution are admirable, while the tints and arrangement of colors are a travesty on good taste. In others, the order of merit is reversed, the composition being of a third-class character, though the blending of the colors develops talent of a very high order. A proper industrial education would remedy these defects, and make first-class, proficient workmen of those who are now groping in the dark.

But, it may be asked, who should take the initiative in this matter? We unhesitatingly reply, workingmen themselves, because they are the parties most deeply interested. A further reference to this subject will lead to the consideration of the advantages of technical education, but if the National Typographical Union will do its duty in the premises, grapple with and aim to solve this important subject, instead of making a junketing tour of its sessions, it will receive, as it will deserve, the thanks of the entire fraternity.

PUT ON THE BRAKES.

THE push and energy of our business men, as compared with those of the old world, have long been proverbial. It has been jocosely remarked that while the former were discussing the probabilities, the pros and cons, the whys and wherefores, American manufacturers would close and execute the contract. In truth, enterprise is not only a distinguishing trait in our national character, but the key to our success over our more cautious and conservative rivals. So long as its exercise is confined to what may properly be called its legitimate sphere, and kept within rational bounds, it is worthy of emulation. Its abnormal or inordinate development, however, at the sacrifice of health, recreation or intellectual improvement, is an evil to be deprecated. And this is just where the danger lies. In this hurly-burly, money-grasping age, too many seem to forget that natural laws cannot be violated with impunity; that man is *not* a mere automatic machine; that when nature's legitimate supply of vitality is encroached on, the continuous strain can only be kept up at the expense of the *reserve* forces; and in corroboration of this fact we can point to more *young old men* who have violated these laws, and consequently paid the penalty for so doing, than any other country in the world. This statement applies to all classes, rich and poor alike; to all, in fact, who have been burning the candle at both ends. Diligence in

business is commendable, but there is a vast difference between the ant and the earthworm. Man was created for a nobler purpose than the mere acquisition of wealth; and we often find that the prostitution of his faculties to gain this end is followed by a retributive justice which deprives him of the power to enjoy its possession. Let us put on the brakes in time, and stop this high-pressure speed. If we do, we may rationally expect to reach and enjoy a ripe old age, instead of commencing to die at the top before manhood's prime is reached.

A SHORT-SIGHTED POLICY.

THE suicidal policy pursued by a class of business men—and those connected with the printing fraternity have a full share of them—of preferring to reach their patrons and intending purchasers through their individual or special medium, instead of through a journal or series of journals devoted to the general interests of the trade, is one to which we have heretofore referred. Such "specialties" never have possessed and never will possess the same value as an advertising medium as a representative, well circulated trade journal, and the reason is obvious—they partake too much of the claim-all patent medicine character, and consequently lose the influence they would otherwise wield. The argument sometimes put forth that in advertising in trade journals they are really helping to advertise the claims of rival firms is a boomerang, because other advertisers are doing the very same thing for them. To all such hagglers we commend the following advice and testimony of one of the most extensive advertisers in the country: "If what you say be strictly true, say it in a good journal. Its readers are intelligent, will appreciate a bargain, and of every such customer you make an advertiser. For forty-seven years nine-tenths of our advertising has been done on this plan, and of the whole expenditure all that we regret is contained in the other tenth."

RAG INFECTION.

THE prevalence of cholera in certain parts of Europe, from which we have heretofore imported a large proportion of the rags used in our papermills, and the danger of infection therefrom, is a question upon which a vast difference of opinion exists. It is claimed by the paper manufacturers that the rags so imported can be effectually fumigated, and that when the proper precautions are taken, and the disinfectant thoroughly applied, no danger need be apprehended. That in eleven hundred papermills in the United States, employing over one hundred thousand people, not a single case of cholera has been known to occur from the disease being carried in rags, and that the drawbacks and annoyances to which they are now unjustly subjected is an act of injustice which seriously affects an important branch of industry.

On the other hand, it is insisted that the importation of rags from infected districts and ports has been invariably prohibited by the government, and that as far as known, the claim put forth cannot be substantiated by satisfactory data, at least in a manner to satisfy the public mind as to its absolute truthfulness; and now that the

plague is spreading, and the ablest scientists and medical authorities, both in the old and new worlds, hold the opinion that danger from the importation of cholera germs does exist; that it is doubtful whether the organisms which are destroyed by the most favorable opportunities of exposure are sufficiently affected to produce that result when the organisms are in the interior of a bale is questionable, the path of duty is the path of safety, and that their entire importation should be prohibited. Further, that as the rags are not a necessity, the advantages to be gained are not equal to the risks incurred, and that the ghastly record of Spain, with its hundred thousand victims, furnishes a warning which dwarfs every argument which can be advanced from a purely dollar and cent standpoint.

We admit there are two sides to the question, but let us look at their relative value. We have on the one hand the pecuniary interests of the paper manufacturers, a very important element, on the other the safety of fifty-five million people. It is doubtless a hardship for the former to be compelled to submit to the present exactions, but on the other hand the benefits derived from the eighty-four thousand tons of rags imported last year do not weigh a drop in the bucket in comparison with the safety of the American people. We have resources within our own borders to meet all demands, though the nature of the material used may require to be changed, and we submit it is more rational for the time being to employ these resources than run any risk, even if that risk is reduced to a minimum.

A NEEDED IMPROVEMENT.

THAT the substitution of metal furniture for wooden furniture was a grand step in the right direction, we think will be gainsaid by few practical printers. Being virtually impervious to water and atmospheric changes, at least those found in the book, job or pressroom, it neither shrinks nor swells, which is certainly more than can be claimed in behalf of its old-fashioned rival, while its mathematical accuracy, if proper care is taken in its manufacture, also gives it material advantages. Especially are these discernible in blank or bookwork, not only securing more perfect justification and register with less time and labor, but giving more solidity and compactness to the form itself.

So far, so good, yet it by no means follows that all has been achieved in this direction that can or should be expected. On the contrary, there is still great room for improvement. In fact its constant use is attended with many disadvantages, and we believe we are within the bounds of reason in claiming that on an average twenty per cent of the metal furniture in use is more or less battered, so as to render it unavailable for a certain class of work, it being so easily injured and liable to indentation, fracture or breakage, that it is well nigh impossible to preserve it in a proper condition. The removal of these drawbacks is certainly worth an effort, especially as its services are so indispensable and so frequently called into requisition. We believe, however, that the ingenuity of the American mechanic will in course of time prove equal to the emergency, and will either furnish an acceptable

substitute for the furniture now in use, or else by some process or agency *harden its exterior*, by which its strength and power of resistance will be materially increased, and the present objections to its use removed.

We throw out the suggestion for what it is worth, believing that the man who succeeds in the venture will not only supply a long needed want, as well as receive the benediction of the patience-tried lock-up, but will also reap a rich harvest from his discovery. This in itself should be a sufficient inducement to enlist the sympathy and efforts of the inventor.

THE REVISED OLD TESTAMENT.

ALTHOUGH a guinea is paid to any person discovering a printers' error in an Oxford Bible—that is a Bible printed by the Oxford University Press—but four errors have been so far discovered in the numerous editions issued of the Revised Bible. Every edition is, of course, an independent work of the compositors and proofreaders, and in an undertaking of such magnitude, it is astonishing that a result so nearing perfection should have been attained. In the pearl 16 mo edition, there is an error in Ezekiel xviii, 26, where an "e" is left out of the righteous and the word is printed "rightous." In the parallel 8 vo. edition there are two mistakes. In Psalms vii, 13, "shatfs" appears instead of "shafts," and in Amos v, 24, in the margin, "overflowing" should be "everflowing."

AWARDS.

THE premiums awarded for the best specimens of composition recently published in THE INLAND PRINTER, have been paid to the successful contestants. As we propose to continue this competitive feature, we again call the attention of the craft to the inducements offered. Twenty dollars will be paid to the winner of the first prize; fifteen to the winner of the second; ten dollars to the winner of the third, and five dollars to the winner of the fourth. The awarding committee, as heretofore, will be composed of practical, disinterested job printers. All specimens for competition must be addressed, prepaid, to the editor of THE INLAND PRINTER.

PRINTERS' MONUMENTS.

A writer in the *Printers' Register*, London, writing on this subject, says:

There are, to Gutenberg the Thorwaldsen statue at Mainz; D'Anger's statue at Strasburg, with a replica at Paris; Laumtz's statue at Frankfort, a cast of which is at our Crystal Palace. Other memorials of the proto-printer are the inscription on the Hof zum Gensfleisch; the inscription on the Hof zum Gutenberg, a small statue in the garden of the same house, at Mainz; the inscription on the Hof zum Jungen, and the recently erected tablet at Eltville. "Koster," whoever he was, has several statues—one in the Market Place at Haarlem, one in the Botanic Garden, and the inscription on the Koster House. Gering has a bust at Paris; Plantin several memorials at Antwerp; and I find memoranda of statues encountered in the course of occasional wanderings abroad, to Bodoni, Castaldi, Thierry Martens, Senefelder, Chaix, Henry Estienne, F. Didot. In England we have the Caxton memorial tablet, erected by the Roxburghe Club, and the window originated by Mr. Powell and subscribed for by the printers of Great Britain—both at St. Margaret's, Westminster.

SKETCHES OF THE BOOKBINDING ART.

BY A. J. COX.

"Come and take choice of all my library, and so beguile thy sorrow."

THIS series of articles is designed to give a general outline of the process of bookmaking, with a few hints to collectors and possessors of libraries on the care of books, and the choice of appropriate styles of binding.

A history of the art from its earliest advent to the present is not within the limit of these sketches; a record of the discoveries, inventions and improvements of twenty centuries requiring more extended notice; but a brief review of a few of its many points of interest may not be amiss.

Bookbinding is coëval with bookmaking; and since letters are said to have been invented by the Phœnicians, two thousand years or more before Christ, and hieroglyphics by Atholes, son of Menes, King of Egypt, who wrote the history of the Egyptians 2122 B. C., doubtless the idea of preserving their records in this way occurred to them; but as none of their works have descended to our times, we must pause, in our glance backward toward these remote ages, at the early days of Rome.

The earliest books of this nation were merely sheets of wood, lead or copper, loosely connected by iron rings at the back. The first improvement upon the substantial but not elegant binding was made by hollowing out one side of two sheets of wood until they resembled a school-boy's slate in its frame, covering it with wax, on which the writing was inscribed, and fastening them together by one edge, face to face, for the preservation of the message. This form of book, called Diptych, was in use among the Romans, especially for the preservation of records, and for epistolary purposes, until after the Christian era; and there is little doubt that the first copies of the Epistles of St. Paul were thus sent out to the churches.

This, however, was not the only form of bookbinding then in use. Long strips of papyrus, fastened by one edge to a roll of metal or ivory, elaborately finished and ornamented, to which the binder affixed clasps and title, are also among the earliest forms of the art. Phillatius, an Athenian, was the first to sew a few leaves of papyrus together—very much as at the present day—and for their better preservation, inclose them in covers of wood. To reward this inventor, his countrymen erected a marble statue in his honor, which shows the estimate in which the ancients held the bookbinder's services. Soon very elaborately carved covers of oak began to be used upon those books whose manuscript contents and decorations were of especial value. The next improvement was to cover the boards with leather or vellum. About the time of the Christian era the Romans covered books with red, yellow, green or purple leather, and decorated them with gold and silver.

Until the fifteenth century, printing being unknown, and the labor of transcribing even a single volume immense, books were extreme rarities; and as much labor and expense were bestowed upon the protection and embellishment of a cherished folio as now suffices to build a house.

Through the dark ages it was the duty of the monks

of the various religious orders, particularly the Benedictines, to copy and bind the books, which were the chief treasures of their establishments.

The general aspect of these monkish bindings is extremely thick, heavy and solid, and to modern taste, clumsy—the wooden cover, with its metal hinges, bosses, guards, corner-plates and clasps, seeming, in everything but dimensions, fit for a church door.

The literary treasures of kings and ecclesiastical dignitaries were incased in ivory sides, artistically carved in appropriate devices; or in enamel, or silver, or even gold covers. These costly bindings were often still farther enriched by being incrustated with jewels.

The most ancient book now in existence is a copy of St. Cuthbert's Gospel and Epistles, in the British Museum. It was written in the beginning of the seventh century, by Eafred, Bishop of Durham, illuminated by his successor, Ethelmund, and bound by Bilfrid, a monk of Durham, about the year 650 A.D. The binding is of velvet-covered boards, adorned with edges of silver, and plates of gold, which are set with precious stones.

Mr. Dibdin, in his "Bibliographical Decameron," has given an account of the library of Corvinus, king of Hungary, who died at Buda about the year 1490. This library consisted of about thirty thousand volumes, mostly manuscripts of the Greek and Latin poets and historians, and was contained in large vaulted galleries. The bindings of the books were mostly of brocade, protected with bosses and clasps of gold and silver; and these, alas! were the subsequent cause of the almost entire destruction of the library; for, when the city of Buda was taken by assault, in 1526, the Turkish soldiers tore the precious volumes from their covers for the sake of the ornaments that were upon them.

With the invention of printing, and consequent multiplication of books in a portable form, came a change in the style of bookbinding. The thick boards, with their metal plates and heavy clasps, their rich enamels, and adornment with precious metals and gems, disappeared, and were succeeded by bindings in vellum, parchment, or richly colored leather, with elegant designs blindtooled, or worked in gold or color, and gilt *gauffrèe* edges.

Some of the wealthy and powerful families of Italy, near the close of the fifteenth century, were the first to encourage skillful artists to design rich and appropriate decorations for books, which the binders were to work out. The love of art was at this time universal; and in the land where Michael Angelo, Da Vinci and Raphael produced their great works, under the auspices of the Medici, the art of bookbinding flourished also.

To this age belongs the name of the famous Jean Grolier, who was the first to introduce lettering upon the back of books. This nobleman was extremely fastidious in his bindings, which were for the most part executed in smooth morocco and calf, with an intersected linework finish, very beautiful in effect. For a great variety of works nothing has since been introduced more elegant or appropriate.

During the reign of Francis I., in the first quarter of the sixteenth century, the French school of binding suddenly

came to the front, and reached a superiority which it long maintained, as at the head of the art in Europe.

It was not until the last half of the eighteenth century that England took the leading place in workmanlike forwarding and artistic finishing of books. Still the art was not without its votaries; for early in the sixteenth century Grafton produced his great Bible, printing an edition of two thousand five hundred copies, one of which was placed in nearly every church in England, secured to the desk by a chain. Within three years there were seven distinct editions of the work, which, presuming each edition to consist of the same number of copies as the first, would amount to seventeen thousand, five hundred folio volumes. The binding, therefore, of this book alone would give some importance to the art of bookbinding at that period.

In the reign of Elizabeth, also, some exquisite bindings were done in embroidery, the queen herself often working covers for Bibles and other devotional books, with gold and silver thread, spangles and colored silks, which she presented to her friends and maids of honor.

But the acknowledged supremacy to which English bookbinding has attained is largely due to the work of Roger Payne, a man gifted with extraordinary skill, dexterity and taste, who flourished about 1770 A.D. His history is an epoch in the art. His work was, as he says, "very carefully and honestly done." His tooling was especially beautiful, and his ornaments, many of which were fashioned by his own hands, were at once highly appropriate and artistic.

His bills, in which he was in the habit of taking his patrons into his confidence, are, like himself, a curiosity. The following is a sample:

Æschylus Glasguae, MDCCXV. Flaxman Illustravit.

Bound in the very best manner, sew'd with strong Silk, every Sheet round every Band, not false bands; the Back lined with Russia Leather Cut Exceeding large; Finished in the most magnificent manner. Embroidered with *ERMINE*, expressive of The High Rank of The Noble Patroness of The Designs, the Other Parts Finished in The Most Elegant Taste, with small Tool Gold Borders, Studded with Gold; and small Tool Panes of the most exact Work. Measured with the Compasses. It takes a great deal of Time making out the different measurements, preparing The Tools and making out new Patterns. The Back finished in Compartments, with parts of Gold studded work, and open work to relieve the Rich close studded work. All the Tools, except studded points, are obliged to be worked off plain first, and afterward the Gold laid on, and worked off again, and this Gold Work requires double Gold, being on Rough Grained Morocco. The impressions of the Tools must be filled and covered at the bottom with Gold, to prevent flaws and cracks.

(To be continued)

OUR CORRESPONDENCE.

THE correspondence in the present issue of THE INLAND PRINTER is well worthy of perusal, and we commend it to the careful attention of our readers. Mr. Rastall's communication is on a subject in which the entire craft is interested, and we believe that the adoption of the system he so ably advocates would eventually prove satisfactory to all concerned.

WE are indebted to the kindness of Mr. Theodore De Vinne, of New York, for the use of a number of cuts illustrative of the art of typefounding, appearing in this issue, and which will appear in subsequent numbers.

Written for THE INLAND PRINTER.

THE PRINTING-PRESS.

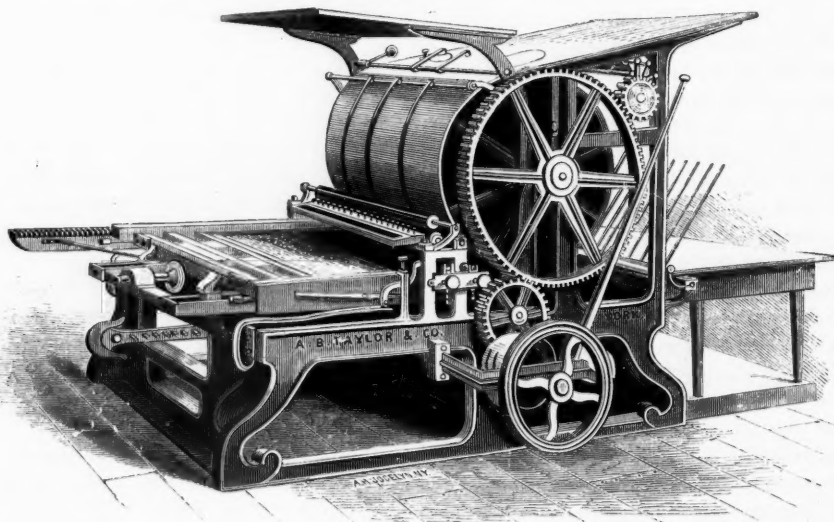
BY STEPHEN MC NAMARA.

PROMINENT among those who have helped to bring the press to its present stage of development, the name of Alva Burr Taylor must occupy a conspicuous place. The finger motion of Napier, the fly by Adams, and the air spring, the invention of Taylor, constitute the most important improvements added to it, and each is characterized by extreme simplicity.

A. B. Taylor was born May 12, 1803, in the township of Norwalk, village of Westport, Connecticut, and descends from a family who formed some of the earliest settlers of that state. He first worked in his father's blacksmith shop making horseshoe nails. In 1816 he made his first visit to New York, and in 1825 went to that city to remain. Having secured a position as blacksmith's helper, he was able to earn just enough to pay his board bill, but soon became a grate-maker, earning \$1.00 per day. In 1829 he

George, who had made hosts of warm friends in the West, died in 1869. Since then the father has gradually withdrawn himself from the works in New York, and lives in Newark, New Jersey, where he employs himself in other business affairs, enjoying the closing years of a life spent in constant activity and usefulness. The business as left by him is now in the hands of his grandson, A. B. Taylor, Jr.

The Napier principle adopted by Hoe was copied also by him. The design of the frames was somewhat different, the base being ornamented by a scroll, and slight changes were made in some minor details, but with the exception of the spring motion they were substantially the same. The gearing was placed on the feeder's side, the fly cam, inclosed in a disk, being on the opposite. In place of tape wheels, a wooden drum channeled throughout its entire length, affording clearance for the nippers to open, was used to deliver the sheet. Strings run down to the roots of the fly fingers to prevent the sheets from



TAYLOR DRUM CYLINDER.

entered the works of R. Hoe & Co., becoming foreman in 1832, and remained in that important position for just ten years. He helped to construct the third drum cylinder press built in this country while with the Hoe firm. This press was set up by him in the office of the New York *Evening Post*.

In 1842 he began constructing the Taylor press, and at once became a strong competitor. The experience gained while with the Hoe's taught him to turn out the best class of work, and his inventive genius supplied whatever printers required.

February 4, 1850, occurred the memorable Hague street explosion, by which Taylor's entire establishment was destroyed, besides entailing a loss of sixty-three precious lives. In 1867 Mr. Taylor's eldest son, George W. Taylor, formed a co-partnership with S. P. Rounds, the present public printer, and began the construction of the Chicago Taylor press, which was said to be the first four-roller press built having all the rollers cover a full form.

adhering to the drum, which was geared to the cylinder wheel. In this construction of the fly, where the fingers are not connected by a cross brace, the delivery of thin stock is troublesome, since the sheet is liable to bag between the fingers, while otherwise it would be held flat. In printing solids, especially on cards, the drum was likely to smear or "crock," and often such work was delivered by hand, and many careless "hands" were injured in the process. Subsequently, the whole idea having been abandoned by Taylor, it was patented in France by Marinoni, who added nippers to the drum, and this formed the basis for costly litigation between Hoe and Cottrell & Babcock, who felt at liberty to use a device so long and extensively used.

The frames of this press were bolted to three heavy cross braces, which also supported the ribs, and formed a combination of such firmness, owing to the great vertical depth, no foundation was considered necessary. The air chamber to overcome the momentum of the bed was the

chief feature of the machine, its action being so soft and cushion-like as to permit of high speed and great service without material wear.

Drum cylinders were constructed with brackets in front to support a shelf for stock, leaving the feed-board free for pointing bookwork. In this way the press was fed precisely like the Adams press. Thus it will be seen how hard builders struggled to meet the often unreasonable demands of printers, and the "points" then so important are now discarded. The bearers were made of a solid bar beveled to correspond with that of the bed, this method being adopted to avoid the Hoe patent. The fountain was so designed the blade could be adjusted to and from the iron rollers to permit any flow of ink required. The cloth roller was driven by pinion to prevent slip, while the roller sockets differed but slightly from Hoe's.

Three-revolution presses and double cylinders were built as well as two-revolution with front delivery, now so eagerly aimed at. In all presses of this class the cylinder was raised by means of a rock shaft and eccentric sliding blocks, differing in this respect from Hoe, who used toggles.

In the double cylinder the rollers, two or five, were placed between the cylinders, by which means the stroke of the bed was lessened. The fountain, shaped like a letter V, was directly above, and necessitated the use of a ductor slightly shorter than the form, owing to the leakage beyond its outer edge.

The accompanying cut of the double cylinder shows the method of hand delivery—one fly-board removed. The fly was used, but was a matter of controversy between Hoe and Adams, the inventor; and upon its purchase by the former was often licensed by Taylor, who tried many ingenious devices to avoid its use.

On the two-revolution front delivery press two hands were required. One fed the sheet which was printed by the first revolution, while a circular brush the full length

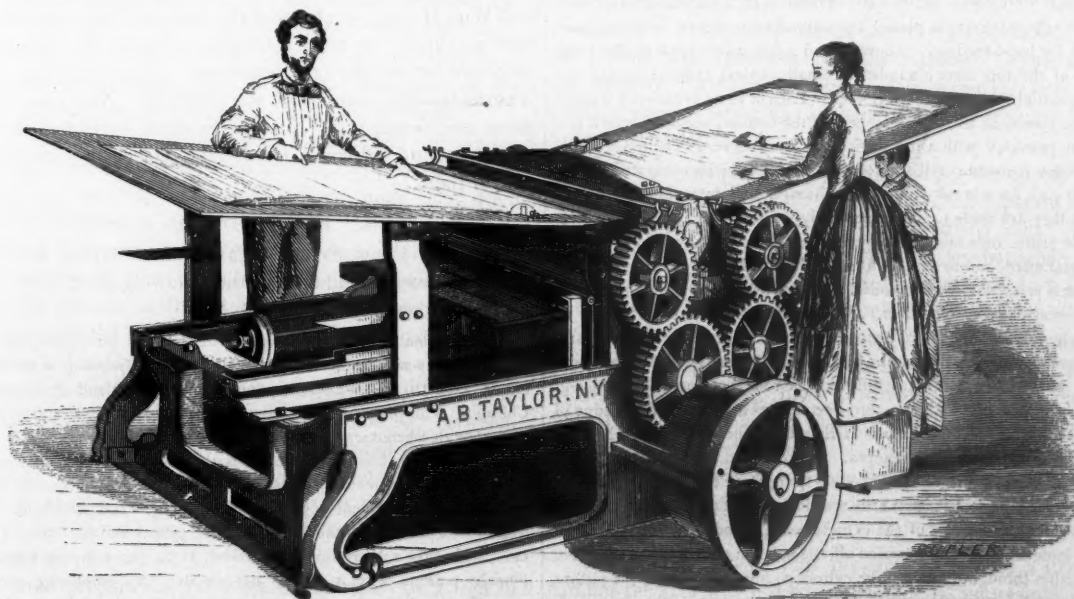
of the cylinder removed the sheet at the instant the nippers released it, and the other attendant laid it on the opposite board. These presses were constructed chiefly for poster work, to avoid smutting. One of them has for many years been in use in the house of Russell, Morgan & Co., Cincinnati.

Perfecting presses were also constructed for illustrated newspaper and bookwork, which were automatic in operation and fed the sheets, printed on both sides, slipped the tympan to prevent offset, and delivered without any human assistance. The self-feeder was the production of that greatest of all American inventors, William Bullock, while the fly originated with Isaac Adams, and that no injustice may be done to their memory this fact is here mentioned; the combination, however, belongs to Taylor.

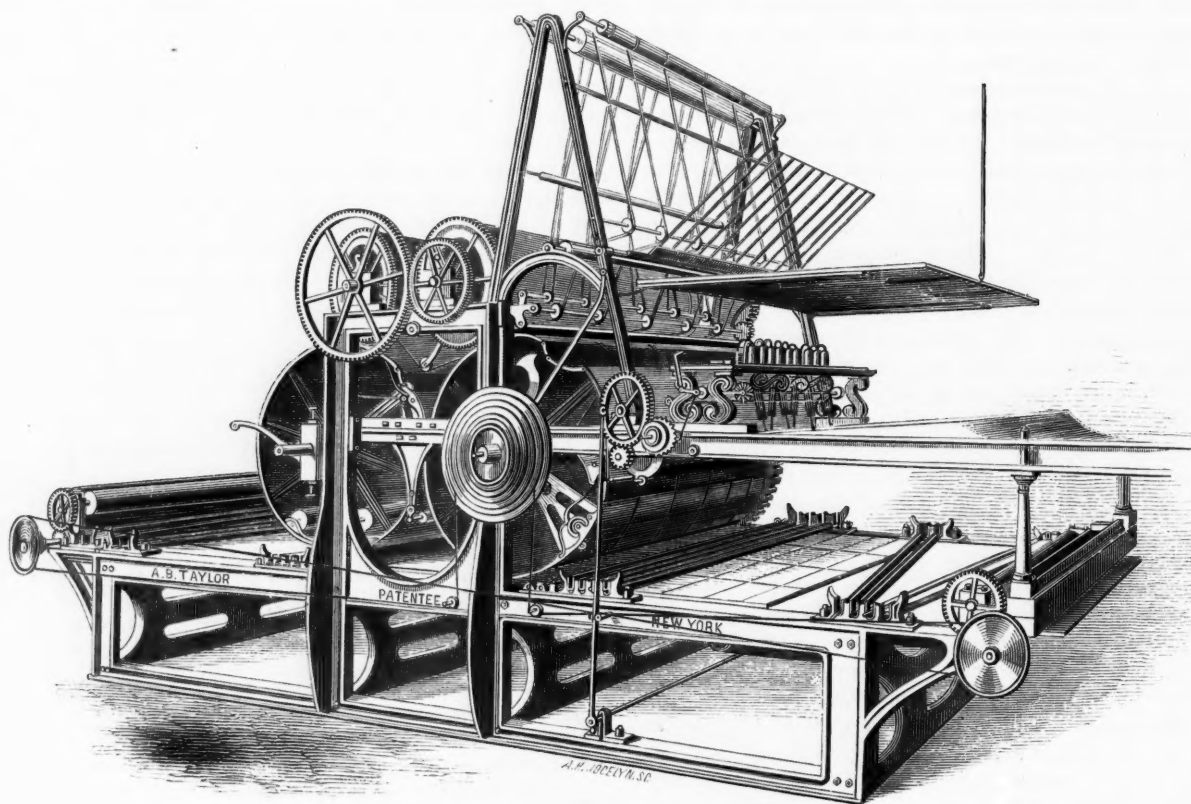
John Henry, in the *Printer*, in 1858, thus speaks of this machine:

To see this wonderful piece of mechanism in operation one almost feels impressed with the idea that it is endowed with life, thought and reason. All the operator or attendant has to do is to carry the paper within reach of the machine, and lay it on what is called the feeding-table. The machine then goes to work, not merely like clockwork, but more like a thing of life, takes the paper carefully, sheet by sheet, prints it on one side, turns it over, making a perfect register, prints the other side, and piles away the sheets as fast as they are printed, in a more even and perfect manner than can be done by live human hands.

The press is twenty-two feet long, eleven feet high, and six feet wide. The two printing cylinders are forty-one inches in diameter, and weigh a ton each; the two small cylinders are for the purpose of turning the sheet over after one side has been printed, and are mounted with grippers which seize the sheet as it passes from one cylinder to another, each set of grippers holding the sheet until it is seized by the next set, thereby insuring a perfect register. One of the most important improvements in this press over all others is a shifting tympan on the second cylinder, which consists of thirty yards of cloth wound upon a roller. One end of the cloth is carried over the blanket and wound upon another roller a little at each impression, the object being to prevent the ink being transferred from the sheet to the blanket, and from



TAYLOR DOUBLE CYLINDER.



TAYLOR AUTOMATIC PERFECTING PRESS.

thence to the next sheet, which is most effectually accomplished, thus avoiding offset.

The beds are connected together, with ink tables at the ends, twenty-nine inches wide, and one in the center, twenty-three inches, making the bed and distributing surfaces upward of twelve feet long. The bed is reversed at the centers by the air chamber, which beautiful device is known as "Taylor's Air Spring."

A pile of sheets is placed upon the feeding-board in the manner usual for hand-feeding. Above it and a few inches back of the front edge of the top sheet a number of small vertical cylinders stand in a row parallel to the printing cylinder. Each of these cylinders is a small engine closed at the top and open at the bottom, inside of which is a piston, provided with a rod sufficiently long to reach the paper when the piston is down. All the rods are articulated; an elongated hole is cut in each for a crank-pin to pass through, and by means of a crank-shaft they are made to move constantly forward and back. The ends of the piston rods are so arranged as to slide on the paper when moving backward, and to carry it forward during the forward stroke. Each piston is pressed down by a coiled spring, placed in the cylinder between the piston and the top cover. From each cylinder a pipe extends to the edge of the feed-board nearest the roller, where it is flattened, and its lowest portion resting on the feed-board is pierced with a small hole. The machinery operates as follows: the rods working backward and forward in contact with the top sheet brings it forward to the edge of the feed-board. The moment it arrives there the sheet closes hermetically the small holes in the pipes. A vacuum in the cylinders and the rising of the piston against the coiled springs are the immediate results of this closing. The piston rods recede from the paper which is left at rest till the iron fingers of the cylinder seize it and carry it to the form. The moment the sheet is carried off, the holes in the pipes are left open, air rushes through them into the cylinders, fills the vacuum, the pistons are pushed down by the coiled springs, and the ends of the piston rods carry the next sheet forward. Several of the cylinders work at a right

angle with the first, to insure a proper register sidewise. There are also a few incidental arrangements, such as the raising of all the pipes from the paper at the moment the last is clenched.

One of these presses was cut in two, had feed-boards attached, and was used in Leslie's for many years. Mr. J. L. Firm, the present superintendent of the establishment, and Wm. H. Ray, in charge at the time, say they were excellent machines; so much care was bestowed in their construction but five sheets of paper were used for packing, and a perfectly solid impression was obtained. The speed was from one thousand to thirteen hundred perfected sheets per hour, and *Harper's Weekly* was for years printed on one of them.

KIND WORDS.

The St. Louis *Printers' Cabinet*, in referring to *THE INLAND PRINTER*, indulges in the following kind and complimentary remarks:

Unquestionably the best publication for printers, publishers, and all persons in any way connected with or interested in printing or publishing, is *THE INLAND PRINTER*, published by the Inland Printer Co., Chicago. This publication is now in its second volume, and its success, though phenomenally great, has been nothing more than it has justly deserved. The writer hereof is the proud possessor of a complete file of this splendid publication, and no reasonable consideration would be an inducement to part with it. It is just the publication that should find its way into the hands of every printer and publisher in the land, and at the subscription price asked, \$1.50 per year, there are no tenable reasons why it should not do so. No employing printer can afford to be without it, nor can he afford to have his employes be without it.

Written for THE INLAND PRINTER.

TYPEFOUNDING.

BY ALFRED FYE.

THE average printer's knowledge of typesetting is so limited that some description of the process by which type is produced will come as a boon to many who have longed to know something about the manufacture of the material which they daily handle, but have had no means of satisfying their desire in this direction. No idea of the number of hands through which the type has to pass, after it is cast and before it is ready for the printer, can be formed by anyone who has not seen the process or had it described; and the amount of work, both artistic and mechanical, that is necessary to be performed *before* a type can be cast is likely to create a feeling almost of wonder in the uninitiated as he is made acquainted with the manufacture of matrices and molds, the two implements which give form to the face and body of the type. A printer should, whenever it is possible to do so (and in large cities where typesetters are located this should be an easy matter), make a knowledge of typesetting a part of his education. Most artisans and mechanics are intimately acquainted with the quality of the material used by them, and can tell how the tools they handle are constructed, and printers ought not to be behind them in this matter. For their benefit we will describe in as interesting a manner as possible how type is made, from the initial point to the finished type ready for use.

Considerable mystery surrounds the invention of typesetting, from the fact that no authentic record exists of the implements used for the purpose of casting type by Gutenberg, who is generally acknowledged to have been the inventor; but from vague references to "casting letters in brass" (no doubt meaning brass matrices), and the use of a mold in connection therewith, in such records as do exist, it is safe to infer that the principle of typesetting has remained the same during the more than four centuries that have elapsed since its invention. Without the mold and matrix, types cannot be made with that regularity and exactness of body and line of face that is so necessary to produce good printing. The face of the type is formed in the matrix, the body in the mold.

A matrix is an oblong, rectangular piece of copper, with the form of the letter it is intended to produce deeply impressed near one end, in such a manner that when fitted to the mold it will be directly in position for giving a correct face to the metal type that is formed in the mold. The making of matrices is an operation requiring considerable artistic skill and minute attention to details. The form of the letter has first to be cut in steel by an artist called a punchcutter, the steel letter thus cut being called a punch. Really good punchcutters, like good workmen in other businesses, are few and far between. Not only must they be skillful engravers, but must have a profound knowledge of the proportion one letter should bear to another; have correct ideas as to the form of letters, and should be, in fact, first-class artists in every sense of the term.

In the preparation of a set of matrices for a font of Roman letter two sets of punches are actually needed.

The sunken portions of letters need to be first cut in relief and driven into the steel that is to be used for the punch. These primary punches are termed counter-punches, and are made to secure uniformity of impression in all the faces of a font of letter, which could scarcely be attained if the sunken portions were gouged out.

The illustration here given represents the counter-punch for a capital H. The white space in the center is cut into the counter, and when driven into the steel to be used for the punch leaves the fine line across the center of the letter in relief, while the dark portions form the hollow spaces in the upper and lower portions of the letter. The other illustration shows the finished punch after the punchcutter has formed the outside of the letter.

The steel used for the punches and counters is of the finest quality obtainable; it is first annealed to render it easily workable, and afterward retempered so as to be able to overcome the resistance developed in driving, either the counter-punches into the steel for making the punches, or the punches into the matrices. Such letters as I, i, l, etc., do not need a counter-punch, as all the cutting is on the outside of the letter; but all other letters in the alphabet have to be counter-punched, or countered, which is the technical term. During the process of punchcutting delicate measuring instruments are constantly used to determine the exact depth of sinking, accurate lining, etc. These instruments are so constructed that they will measure the one-thousandth part of an inch, sometimes even less. The necessity for such close measurement will be apparent to anyone who will examine a single line of type, and observe the perfect proportion which one letter bears to another in the size of face and thickness of the lines which give it the right form or shape. The amount of time expended and expense involved in making a set of punches for a font of letter is something enormous, and the printer who carelessly tosses a "busted" type into the hellbox little thinks how much it would cost to produce another letter like it if the matrix in which it was formed were destroyed.

When the punches for a font of letter are all cut the operation of making the matrices begins. A separate slab of copper is required for each character in the font. The surface of the copper is highly burnished, so that when the punch is driven into it, the face of the letter will be a perfectly even surface, without flaw or blur of any kind. The copper slab is firmly fixed in an apparatus called a driving-block, the punch is placed in the right position, and by means of a smart blow is driven into the copper. Sometimes it will happen that the punch gets broken in the process of driving; even the detachment of a small portion of the face of the punch is sufficient to cause trouble, and the process of punchcutting for that character has to be gone over again.

The copper slab as thus prepared is termed a drive. Around the spot where the punch made its impression is a raised surface, or bur, caused by the displacement of the



PUNCH.

copper in the process of driving. This has to be smoothed away, and the drive made of even surface. This portion of the work is intrusted to another person called a fitter, who has to test the drive in many ways before it becomes a matrix.

(To be continued.)

Written for THE INLAND PRINTER.

NOTES ON WOOD ENGRAVING.

NO. XIII.—BY S. W. FALLIS.

THE "Nuremberg Chronicle" does not display any superiority of design or conception over other books of like nature of the same period; its only original or superior claim consists in the fact that it was the first book printed from cuts executed in simple black and white without calling the assistance of the colorist to complete the design after the cuts were printed. This change was brought about by the introduction of cross-hatching or relief lines crossing each other at different angles and intervals, representing the different degrees of intensity or shading, technically called color. This was an effect already in use in copperplate engraving, but a much easier method is employed in that art than in producing the same effect in wood engraving. As in copperplate engraving the lines are incised into the metal with about the same ease as drawing with a pencil, while in wood engraving the method is exactly the reverse, that is cutting out the minute square or diamond shape interstices, retaining the lines crossing each other continuous and unbroken in relief. The depth of color or shading was produced by the varying thickness of these relief lines, and their proximity to each other. In engraving cross-hatching on wood the task is much more difficult and laborious than on copper, and requires more patience, nicety and skill. At first it was thought beyond the power and ability of the wood engraver to successfully produce cross-hatching on wood, but this was most effectually proven an erroneous supposition. The earliest wood cut in which cross-hatching appears is the frontispiece to "Breydenbach's Travels," published in 1486, at Mayence. This is undoubtedly the most skillful wood engraving of its time. The "Nuremberg Chronicle" was the first book in which the cuts employed extensively the process of cross-hatching to obtain color and general shading effect, and by the general introduction of this process this volume marks the beginning of an elaborate, pleasing and comprehensive school of wood engraving. It would be no easy task to describe minutely the hundreds of illustrated books printed in Germany before the end of the century, so we content ourselves with the preceding brief description of those of most importance in the history and progress of wood engraving. The different books printed at this period are as diversified in their conception, and the execution of their illustrations as they were in number.

The majority, however, were of a rude and grotesque nature, but as a whole much praise should be given to the practice of wood engraving in connection with printing in the promotion of refinement and civilization. Wood engraving was not only useful in the advance of art, but it marks an epoch in the entire life of mind and culture; the ideas portrayed by the wood engraver and multiplied in

printed pictures were more forcible and comprehensive than the printed letter-press descriptions or announcements, and appealed to the intellectual understanding through the eye, giving a strengthening force to the memory where letter-press would fail.

As typography advanced from Germany to other European countries the art of wood engraving went with it hand in hand, and they were inseparable in their noble cause of diffusing knowledge throughout the land.

The first books printed in the French language appeared in Bruges about 1475, but the first city to issue books in the French language, from its own presses, was Lyons, which had gained a knowledge of the arts of printing and wood engraving from Basle, Geneva and Nuremberg, a result of their close commercial relations, barring a few scattering doubtful examples. It was in these Lyonesse books that French wood engraving first made its appearance. From the very beginning of printing in France, Lyons was the head quarters of popular literature, as well as the center of printing books in the vulgar tongue. Paris was the seat of the literature of the learned, both in Latin and French, and was devoted to reproducing religious and scientific works. At the close of the fifteenth and beginning of the sixteenth centuries, the presses at Lyons issued the greatest number of the first editions of the popular romances which were so eagerly sought for, not only by the French, but throughout all European countries. These books were generally intended to meet the requirements and tastes of the middle classes, who were not able to possess the costly, illuminated manuscript books, which had previously controlled literature. These numerous works, at the time, were not considered of enough value to preserve, and in consequence became very scarce, and at the present time very valuable to the bibliographer historian and antiquarian. They were published in almost countless numbers, and spread a far under-estimated influence of valuable and literary knowledge and refined taste throughout the whole of Europe, and opened up avenues of acquiring knowledge which steadily and surely advanced as the cycles of time rolled on.

Wood cuts were first introduced into these valuable books about 1476, but for some twenty years following this date the art was practiced more as a trade than an art, which fact in itself explains very satisfactorily the reason for so little artistic merit being displayed in its products. In 1493 an edition of "Terence," made its appearance at Lyons in which the former rudeness of the art gave way to the exhibition of some skill in both designing and engraving, and brought to light the first indications of the excellence to be attained in the art at Lyons in the sixteenth century.

The "Golden Legend," of 1483; "The Fables of Esop," of 1484; "Chaucer's Canterbury Tales," and other books printed by Caxton were embellished with wood cuts, but it is unnecessary to either enumerate them or give specimens of the cuts, as they were all executed in the same rude and inartistic manner as the cuts in the Book of Chesse and Mirror of the World. In the "Book of Hunting and Hawking," printed in 1486, at St. Albans, and in the second and enlarged edition of the same work

of 1496, printed at Westminster, by Wynkyn de Worde, Caxton's successor, there are also rude wood cut illustrations. The most creditable wood cut printed in England prior to 1500, is a representation of the Crucifixion at the end of the "Golden Legend," of 1493, printed by Wynkyn de Worde.

There is a German edition of Jacobus de Cessolis in folio, with wood cuts, supposed to have been printed at Augsburg, by Gunther Zainer, in 1477, but both printer's name and date of publication are based on no better authority than mere supposition. The first German edition of this work containing wood cuts and bearing a positive date, was printed by Henry Knoblochzer, at Strasburg, in 1483. The wood cuts in the Chesse and Mirror of the World, were equal, if not superior, to any printed either in England or elsewhere at the same period, are far better than those in "Sorg's Bible," of 1480, or "Veldener's Fasciculus Temporum," of the same year. In many of the cuts printed by Caxton, the most simple methods are employed to convey the ideal subject. The outlines are coarse and stiff; the shadows and color in the drapery are indicated by short parallel lines; cross-hatching being studiously avoided in any of them, as cheapness, devoid of artistic merit or laborious mechanism, seemed to be the prevailing idea in their production.

The first instance of maps being engraved on wood, appears in "Ptolemy's Cosmography," printed in 1482, by Leonard Holl, at Ulm. It contains twenty seven maps and is folio in size. In a general map of the world the engraver has cut his name at the top. At the corners of this map the winds are expressed by ideal heads with puffed out cheeks as in the act of blowing. These heads are very indifferently engraved. This work is also embellished with ornamental initial letters, engraved on wood. Each map occupies two folio pages, and is printed on adjacent pages, so that when the book is opened each of the maps have the appearance of being printed from one block. The maps are engraved in skeleton or outline, and are very coarsely cut, but as the names of places, rivers, mountains, etc., are also engraved, the execution of these thirty-seven maps was the result of a vast amount of labor, coarse and unskilled as they are. In 1486 another edition of this work with the same cuts was printed, at the instance and cost of Justus de Albano, of Venice, by John Regen, at Ulm. There were also editions of this work printed from copperplate engravings, but as this does not bear on the object of these notes, we leave them with mere mention.

In a folio edition of Ptolemy printed by Jacobus Pentius de Leucho, at Venice, in 1571, the outlines of the maps with indications of mountains and rivers are engraved on wood, and the names of places are printed with type of different sizes with red and black ink. The double borders that surround these maps in which the degrees of latitude are indicated, appear to be formed with wide double metal rules. At the head of several of the maps are engraved representations of animals, emblematic of the country shown on the map.

In the last map, of Loraine, in an edition of Ptolemy, in folio, printed in 1513, at Strasburg, by John Schott, a

still further attempt is made to print in colors in the manner of *chiaro scuro* wood engravings. The hills and trees are printed with green ink, the indications of towns and cities, and the names of the prominent places are printed with red ink, while the names of the less important places are printed with black ink. This map being printed in three colors, viz., green, red, and black, required two separate engravings on wood and two separate type forms, each of which was printed separately. The arms which form a border to the map are printed in their proper heraldic colors.

At a later period a new method was introduced by which the engraver was spared the tedious task of cutting the letters, and yet the printer was able to make a perfect printed map with one impression. This was done by engraving the indications of mountains, rivers, cities and villages, leaving sufficient blank spaces for the names. The block was then morticed and type set in for the different names, so that when an impression was taken a complete map was the result. The engravers, however, were not very successful in map engraving, and it was virtually given up in favor of copperplate engraving, and from about 1570 the practice was almost entirely abolished and remained out of common use for years. However, there were occasionally maps engraved on wood, from the first to the middle of the nineteenth century, the practice being somewhat revived, but as a rule was not very successful, from the fact that it required too much labor and time to engrave a good and intricate map, which made this class of work too expensive for general use, while there were cheaper methods of doing the work.

(To be continued.)

Written for THE INLAND PRINTER.

DOES GOOD PRINTING PAY?

BY A. V. HAIGHT.

HOWEVER desirable it may be for the large number who take a deep interest in the printer's art to aim at its elevation and advancement, the question of doing a successful business must always be a chief consideration. In other words, the pleasure of producing beautiful work must be governed by the profit. The question, "Does good printing pay?" has been often discussed, and, while the experience of some may justify a negative answer, a great many better qualified to judge, perhaps, have been convinced that good printing does pay "in the long run."

The "cheap" printer will maintain that time is thrown away in any effort to do work above the average, or even by insisting on careful work; but he is not a competent judge of the question. Whether one aspires to the better grades of work or prefers to do the cheaper kinds, he will find in time that it is always better policy to do the work he has in hand as well as his ability will permit. It is a fact that he who slights his work, whatever it may be, cannot build up a successful business, nor can he thus hold a business already established, no matter how firmly rooted.

The printer, who uniformly does his work well, and can be depended on for it, can, in many cases, command

his own price, so long as it is any way reasonable. His customers may temporarily drop away, but depend upon it, if they are worth having as customers, they will not long stay with the cheap printer. The taste of the business public is surely being gradually educated to a higher class of work, and, as a rule, the work of twenty years ago would not answer for the present day.

But good work of itself may not always be certain of securing success. Much time may be thrown away needlessly if the workman does not evince proper interest in doing his part. The demands made on the good compositor are severe, and not only compel constant study, but the appliances of these days require that he have versatile talent as well as the mechanical skill to properly execute. He should always be on the alert to grasp any new ideas that may be applied to his work, and when anything comes to his notice that suggests something new he should make a note of it and keep it in a convenient place for future use. A scrap book for such memoranda and sketches should be kept, which would often prove useful when a piece of fine work might be required and the time for its production be limited. Such a book will save many hours' perplexing study, which can be immediately put to the prompt execution of the work. The compositor thus equipped will be able to make himself almost indispensable to his employer, and can command a better salary than one who is compelled to take up valuable time in experimenting during working hours. Such men not only give the office an advantage over its rivals, but enables it to produce better work at a good profit. By such means, if in no other way, tasty work cannot only be made to yield good returns directly, but the office secures a reputation and standing which will draw new business at remunerative prices.

It is not the most intricate rule work nor the most elaborate combinations that always give the best results. If the customer is willing to pay for them, very good. But the aim should be, if working for profit, which is necessary with the majority of the craft, to get the best possible results with a fair amount of labor. The difficult contortions of brass rule may serve to exhibit the skill and patience of the compositor, but comparatively few are willing to pay for the time necessary for such manipulation. In color work, a judicious arrangement of few colors can often be made more attractive, with the introduction of a new idea, though very simple, than the elaborate and difficult work which can only be appreciated by the printer. Many of the most striking examples of color work are brought out by the simplest means. But however unpretentious the design, the details should be carried out to perfection, if possible. No matter how beautiful a design may be, if the miters are imperfect and the composition unfinished and slovenly, or the presswork badly done, all the work is thrown away. Still, a piece of ordinary composition may look passable if supplemented by superior presswork.

The primary condition of financial success in good printing rests with the workmen. If the compositor, as a rule, take a day to accomplish a result that may be reached in a simple way in half the time, he is an unprofitable

workman, and any indirect benefits of his skill are not likely to offset his unnecessary efforts.

In a properly conducted office, with the right kind of workmen, it may be said that the production of good work costs no more than the inferior. The habit of careful attention once formed, and always insisted upon, will in time "make crooked things straight," and not only result in turning out uniformly good printing, but bring both glory and ducats to workman as well as employer.

Business men recognize the tendency to better things in the line of printed work. The public taste is becoming such that a business is in some measure judged by the appearance of the stationery and advertising matter made use of. Those of good judgment know it is a mistake to send out inferior printed matter. If it is gotten up in attractive style it will arrest attention, and the main object of the advertiser is at once attained. This fact of itself has been largely instrumental in crowding out many who, a few years ago, were comparatively prosperous. Thanks to the persistent efforts of many American printers, a poor piece of printing is the exception rather than the rule in the majority of places throughout this country. Their action has so stimulated the demand for good work that it is not safe to offer an intelligent customer the botch work that is occasionally seen even at this day.

To those who become attached to the art it has a fascination that is not easily destroyed. The continued efforts of those engaged in the auxiliary arts are pushing the intelligent printer to his best endeavors. As nothing is stationary in nature, so the art of printing must either advance or retrograde. It is not yet far enough beyond infancy for the latter, and those who are to be the leaders and who will command success must unceasingly strive to excel. By such efforts only can we hope to decisively settle the question that good printing pays.

POOR PRINT AND THE EYES.

Nothing, perhaps, is causing so much injury to eyesight at the present than poor and indistinct print. Everyone has experienced the unpleasant sensation that follows on changing from a book clearly and distinctly printed, to one that is not. The sensation is always unpleasant if not positively painful. Many a book or paper is never read through because the would-be reader, soon after beginning to read, becomes weary and throws it aside, often supposing that the author is tedious and wearisome, when it is really the printing. This being the case, we are surprised that so many publishers and authors allow their publications to appear so indistinctly printed, and, even if clearly printed, in such small type as to render it difficult and wearisome to read. We have no doubt that many a publication is on the wane from this simple cause.

A medical work was recently published in Chicago, written by an eminent and well known practitioner. Its sale has been a failure. The eminence of the author and its valuable contents should have made it a success. No one, however, can read it an hour in the daytime without great weariness, and to attempt to read it at night, is decidedly painful.—*People's Health Journal*.

GRAY sets off a color better than either black or white. White, gold or black will serve as an edging to any color. A white ground has a tendency to make colors upon it appear darker, while a black ground has a contrary effect. In the association of two tones of one color, the effect will be to light the light shade and darken the other. The fact that incongruous colors are often harmoniously combined in nature is no guarantee that they may be similarly applied in art.

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Annali tipografici Piemontesi del secolo XV.

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See Didot's Essay on Engraving on Wood, page 288.

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R. R. McCabe & Co., 68 Wabash avenue, Chicago, Ill.

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CORRESPONDENCE.

While our columns are always open for the discussion of any relevant subject, we do not necessarily indorse the opinions of contributors. Anonymous letters will not be noticed; therefore our correspondents will please give names—not for publication, if they desire to remain incog., but as a guarantee of good faith.

TRAMPS AND TOURISTS.

To the Editor:

MILWAUKEE, October 1, 1885.

During the past few years the tendency has developed among members of our craft to use the word, tourist in referring to traveling printers. I desire to offer a mild protest against the application of this word to this class generally, and to favor the continuance of the old word tramp. We have both tramps and tourists among us, but few ever think of distinguishing between them. There is as great a difference between tramps and tourists, as between black and white.

A tramp printer is a simple vagrant, and deserves nothing from us but our detestation. They are as mean a set as ever disgraced a respectable community. They come among us like nauseous hogs reveling in filth. If not rescued from the gutters by the police, they come to the printing-shops in their dirty rags and exclaim, "Brother, behold my misfortune! Give me of thine purse that I shall not die." Their pitiable condition makes their appeals so eloquent that few men can restrain their sympathy. The thought occurs to most men that the tramp is lying. He must have money in abundance, else how can he afford that luxurious perfume? It must have cost dollars to scent himself so strongly with alcoholic perfume. But his oration converts the most obdurate. He generally wins his suit and hurries off to invest in more perfume, bound to have a sufficiency of that at any rate.

The tramp is not always a man appealing as described above, though filth is the general characteristic of his species. They sometimes appear as glorious dudes, and to speak truthfully, they are the tramp of tramps. The loveliest of young widows is not too good to defraud of board money. The foolish, but industrious print, is willing to lend him a dollar or so to enable him to see his girl to the opera, but the poor creature generally gets fleeced. The dandy tramp lasts as long as people are fools enough to detain him.

The tourist belongs to a different species. He is an intelligent man and a capable printer. He is a tourist either because circumstances compel him to be such, or because he loves to travel and see what's to be seen. He is well informed and has a variety of valuable information concerning every place where he has been.

The custom of traveling from place to place in search of work, which prevails to a great extent among printers, is not a praiseworthy one. However, if we can find room for the tourist, after providing for the home product, we should give him a chance. But the tramp should be treated with the utmost abhorrence. This would result in much benefit to the whole craft.

W. H. D.

OUR PHILADELPHIA LETTER.

To the Editor:

PHILADELPHIA, September 27, 1885.

During the past month there has been quite a boom in business, book and jobwork being very good, particularly in the press department. We, however, have plenty of good men to do all that is required. Secretary McIntosh, of the International Typographical Union, did wisely in allowing McCalla & Stavelly's to print the proceedings of the last session, as they have made a creditable job of it, and then it is a thorough union office in both departments.

Speaking of the International Typographical Union I cannot help remarking that the two Philadelphia gentlemen who were honored with positions in that body, Messrs. McIntosh and Gamewell, are doing yeoman's service. The former, assisted by the officers of No. 2, has already established a union in Reading, and, I believe, has the organization of two others in view. Mr. Gamewell, as second vice-president of the International Typographical Union, and chief organizer of pressmen, is working with an assiduity astonishing to behold. Since the middle of last June, besides attending to his occupation as pressman, he has, in addition, as an officer of the International Typographical Union, written about one hundred and fifty letters, seeking to obtain the names of pressmen in different cities who would be competent to organize

unions in their localities, and, where this was not possible, trying to induce the men to unite with the nearest typographical union. To everyone we say, "help that man."

Over five thousand workmen and women assembled at Industrial hall last night, to protest against the unwarrantable interference of mayor Smith's policemen with working people in the exercise of their rights. Frederick Turner, grand secretary of the Knights of Labor, was made temporary chairman, and Mr. James Welsh, president of Typographical Union No. 2, permanent chairman. It is alleged that the police have been employed to intimidate working people, and without provocation, clubbing and arresting them. Until what is known as the Bullitt bill charter goes into effect, which will give whoever happens to be mayor of the city a great deal of power not now invested in that office, the mayor of Philadelphia amounts to a little more than a big chief of police, so that he is the responsible one. It is amusing, under the circumstances, to recollect that mayor Smith was elected on the "tariff issue," and is known as "Our Tariff Mayor." Well may "Tariff" say, "Save me from my friends; let not their precious balms break my head."

C. W. M.

OBJECTIVE vs. SUBJECTIVE TRAINING.

To the Editor:

CHICAGO, October 1, 1885.

When a compositor has produced a job, showing excellent display in type, flourishes, borders and what not, and the proof returned to him with instructions to reset it, and to avoid the use of gingerbread effects, his foreman may feel it a somewhat ungracious position to be the medium of conveying to the compositor the decision of the customer that he wants nothing fancy, but that a plain, every-day job would be more acceptable.

In like manner your correspondent may be thought ungracious if he shall express dissent to the "sermon" in the September number, and enter his protest against the visionary ideas set forth in that somewhat contradictory production, "How to Produce the Best Results."

It would tax your patience, and fill too much space, to review all the strange propositions of the sermon. One or two extracts will suffice to exhibit the visionary theorizing of the sermonizer.

Printing is a technical knowledge, same as any other trade. * * * The higher the education, and the more prominent the special talent, the better will be the result. It requires but a few years to acquire the mechanism of the trade, to become acquainted with the material, and how to handle it; all above that is a matter of individual talent, ability and education.

A very pretty theory this. How rude must one of necessity become, to be constrained to prick the bubble, the airy conceit of the paragraph above. This veritable castle-in-the-air will almost tumble of itself; a faint breath will cause it to totter. Taking a "highly educated" person, man or boy, one with a "special talent;" give him a "few years to acquire the mechanism of the trade;" presto, we have a printer—according to the speculative idea of the sermon. This is so absurd a proposition, that it is safe to assert there is not an intelligent practical printer who will accept it as true.

The printer's education begins as he learns the boxes of the case; proceeds through the trying task of justifying his line without squabbling, and continues till the experiment is tried of emptying his first stickful. His education still goes forward with every operative detail of his daily work. There is a constant, an hourly addition, to his store of knowledge; so that it becomes a truism, the printer's education is never completed.

The education of the printer is not obtained from text-books. It is essentially a practical instruction. Theory has no place in a printing-office. The persistent application of the mind and sense, by observation, sight, touch, alone enables the boy to ripen into the accomplished printer. To this must be added the traditions (the word is used in the sense of transmitting knowledge without the aid of written memorials or methods) which are handed down from old to young. You cannot formulate these principles of instruction, and embody them on the printed page, to be read and acquired by everyone. To paraphrase a theological axiom, "Faith (trade or art) cometh by hearing" (practice).

A man with the wide range of knowledge suggested by the sermon, acquaintance with the "sister trades, a limited art education, the English language, German, French, Spanish," etc., may possibly make

a very poor printer. In other words, a man is more likely to become a thorough and accomplished printer without the aid of scientific methods or speculative ideas forming a part of his education. There is today a forcible illustration of this. Two young men have completed the term of their apprenticeship. One has a smattering of the languages, music, etc.: give him a job in manuscript, and he makes a dismal failure in its typographic display. The other comes from a country town, with an ordinary common-school education, and he develops into an excellent printer, exhibiting capacity in display and mechanical accuracy. The practical proof and illustration of our proposition can be found in every large printing-office in the land.

It is not intended, however, that we should be understood as decrying knowledge as a pre-requisite in the education of the printer. The rejection of the general rule that an educated man must necessarily develop into a first-class printer is the aim of this article. The application of the general rule is, in nine cases out of ten, a falsity, and tends to mislead in the ordinary affairs of life. Specific rules and methods must obtain in the training of specific individuals. Apprenticeship systems, as such, refinements of art, or experimental drawing, none of these will make a man a printer fitted to take a place in the world of mechanic art. Knowledge is indeed necessary in the application of art and its methods to practical uses; but facts or objects pertaining to any branch of knowledge should always precede the science of those facts. We have to do with that which is real, objective; and not that which is ideal, and exists only in the mind of the individual.

T. D. P.

ENGLAND.

[From our own Correspondent.]

To the Editor:

LONDON, September 10, 1885.

The prophecies made by many papers to the effect that printing will brighten up at the end of August are beginning to be realized.

Following is a plan of the logotype case as used, and been used for over twelve years, in the Dublin *Freeman's Journal* office:

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It can be learnt in a day, though somewhat perplexing the first few hours. A case when fully loaded is about as much as a man of ordinary strength can lift (its size, by the way, is more than half as large again as those in former use), and such a thing as shaking when so charged with letter is unknown. Some compositors *vice versa* the "en quad" and "he" boxes, while others reduce the partition allotted the thick spaces about one-third, placing the "h's," when so divided, in the upper portion, and thus bringing the colon into the eighth alphabetical letter's late quarter.

The upper case is of the same size as of old; but it is a puzzle why this portion was not also enlarged, for all along, the paucity of boxes in the cap and figures half, and its consequent incapacity for holding enough fractions and accents has continually been lamented.

More than eighty of the one hundred and forty-five boxes have a descending incline for those letters or combinations least used, consisting of a thin piece of wood, glued nearly half way down into the

receptacle, but these are, in the majority of instances, quickly routed out by the compositors, that the case may hold yet more letter. Getting in distribution is the most difficult thing, and the hardest becoming accustomed to, of all.

An attempt was made some six weeks ago to start a morning paper, entitled *Daily Events*, in the metropolis. Monday, July 20, was the day fixed upon for the issue of No. 1; two and three did not appear, and therefore the publication died almost in its birth. Owing to the want of proper management on the part of both proprietor and editors, work, which was commenced about 10 o'clock on the preceding Sunday morning, did not terminate till between 6 and 7 A. M. on the following day, although the forms were promised the machinist—the paper being put out for machining—at 10 P. M. on the Sunday evening. The whole affair is a striking example of the errors editors who do not understand printing, and are almost entirely at the mercy of those who do, are liable to fall into. On account of, as before written, not making the necessary beforehand arrangements, the paper was not on the machine until nine hours after the proper time. A further delay was incurred when the matter reached the printers, for a rotary machine having been engaged for the job the forms had to be stereotyped for between 5,000 or 8,000 copies, which number was all that was printed. In fact, there were more hands on the job to stereotype and machine the paper than there were compositors.

A contemporary informs us that "Americanisms are carefully expunged" from the Australian papers. It's not so here; it's just the reverse, and the merry and droll literaturesqueness of the papers "from over the sea" that is unmistakably creeping into the columns of our journals is quite a relief from the old and heavy reading hitherto digested by Englishmen.

An able and interesting lecture was delivered by a prominent member of the printing fraternity at Uxbridge, a town of growing importance, little more than fifteen miles from here, a few weeks back, the subject being "The Use of the Vote," and dealing with the newly extended franchise.

A compositor was beating some new distribution on the stone until the foam—ground lead, dirt and water—oozed from every space hole. The foreman furiously vociferated that he was bending the type, and threatened to give him a fortnight were he so contumacious as to repeat such practice. So the typesetter, who had tried every remedy known to him for loosening baked matter, asked an editor for a remedy. The latter's reply was, to put the matter to soak for three weeks in water, rendered just tastable of salt. He did so, and with a satisfactory result; but the salt water must have had a softening influence on the nature of the metal.

Were it possible to send THE INLAND PRINTER flat—a custom adopted by the finest of our printing trade journals—'twould considerably allow of our receiving the Chicago monthly in a less crushed, and often torn, state than at present; for 'tis a pity that such excellence should be so roughly used.

An enlargement of the sheets of that interesting, ably edited and

well gotten up monthly printerly organ of the Printers' Society of Scotland, the *Scottish Typographical Circular*, is near at hand.

The severe depression in most trades of the country continues. Strikes are numerous, the principal one now attracting most attention being that in the Oldham cotton trades, which show no sign of coming to an end. The cause of this stoppage of work, by which many thousands are idle, was the action of the employers in demanding a reduction of full ten per cent, with short time and limited production, although the men showed their desire to avoid a serious dispute by proposing to accept a five per cent reduction and short time. The operatives fully deserve support in their hour of trial, and all sympathizers say, "may they succeed!"

Times promise to be brighter for book houses in the west of England. One noted firm in Aylesbury expect to be successful in their endeavors to show a fair balance at end of year. PRINTERIAN.

TYPE MEASUREMENT.

To the Editor:

CHICAGO, Oct. 1, 1885.

A measure, whether of quantity, weight, time, distance, value or of labor, is supposed to represent a definite and unvarying amount. If it does not do this, the term is a misnomer; it is not a measure. The establishment of a measure has always been attended with a vast expenditure of thought and labor. The little two-foot rule of the carpenter, which can be purchased anywhere for ten cents, is a very simple affair to look at casually, and many will consider it a wild and baseless utterance when I assert that the establishment of the modest foot-measure involved more calculation, care, time and study than did the invention and perfection of the pretentious locomotive; but I am asserting a fact, nevertheless, which can be substantiated. It is a quaint truism, that "Nature abhors a vacuum," and it is also true that the versatile dame never duplicates her productions. No two leaves in the vast forests of the world can be found that are identical in structure, and no two grains of sand can be unearthed exactly alike in weight, form or color. Thus, in viewing Nature from this point, it will be seen that when human beings attempt to establish a measure, they endeavor to solve the problem of producing an article that can be duplicated at will; the duplicates must not vary in the slightest degree from the original, and the construction of the original measure itself must necessarily be based upon such a plan that it can be reproduced exactly in case of loss or destruction. This is contrary to Nature's productions, but still measures are indispensable in the conduct of human affairs, and if the variations in a measure are so slight as not to be appreciable, then it becomes a true measure for all intents and purposes. It is an exceedingly difficult matter to make a measure which will truly represent the labor of a compositor. His work is performed upon type varying one from the other in the space occupied, and no means has yet been found of ascertaining the actual number of type composed in a given space without counting them one at a time. To measure the work by that plan would involve too much time and labor, and plans which are supposed to closely approximate the amount of labor of a compositor are in vogue at the present time. The plan in general use in all English-speaking countries is the 1,000 em or cm measure. This is not the space of 1,000 letter n's or m's, but is in England 500 and in the United States 1,000 squares of the body of the type to be measured. This space is very readily arrived at by ascertaining the number of squares in a line of the book or newspaper upon which the work is performed, and the number thus ascertained divided into 1,000, the quotient will be the number of lines in the 1,000 measure. This would be a close approximate measure of the labor of a compositor if all fonts of type were uniform in the space occupied by their letters and characters. In this respect there is great diversity, which increases year by year. Each of the multitude of typefoundries is a law unto itself as to what space its alphabets shall occupy. In fact, in cutting a new face, the founder cannot tell in advance with any accuracy what space the alphabet will measure. At the present time, not only the faces of the letters but the bodies themselves vary in the amount of space occupied. Thirty lines of brevier from one foundry will fill the space of thirty-one lines from another, and as great variation can be found in all body-type. This variation is the cause of endless annoy-

ance and vexation to the practical printer. He is obliged to procure all his type and sorts from one foundry, and if he buys a font of display type from another which strikes his fancy, it will not *line* with the type he has of the same name, neither will his spaces and quadrats justify it. This variation in the *depth* of body-type appears to be in a fair way to be remedied. Marder, Luse & Co., typefounders, of Chicago, have for years been manufacturing their "Interchangeable System of Type Bodies," by means of which the bodies of all the sizes of type are proportionate to each other. This is as it should be, and I understand that many well known founders are yielding to the necessity for uniformity, and are adapting their productions to Marder, Luse & Co's system. This still leaves the typefounders at liberty to vary in the space the letters occupy in width, though they may be uniform in depth, and it is here the difficulty arises in attempting to measure the labor of a compositor. Under the 1,000-em plan, compositors set at the same price per 1,000 ems, type upon which the alphabets occupy spaces ranging from 12 to 18 ems. Thus one man picks up 26 letters and is allowed 12 ems for it; another, or the same man upon another font of type, picks up 26 letters and is allowed 18 ems for precisely the same amount of labor. The typographical union fixes a uniform price per 1,000 ems, regardless of the character of the type to be measured, and thus makes it possible and obligatory for some of its members to perform 50 per cent more labor than others for the same recompense. It is irony to call this specimen of chuck-a-luck a measure. The compositor who is employed upon a font which measures but 12 ems to the alphabet, struggles hard for a pittance, and he may complain to his union that he cannot earn a living at present prices, and contend for an advance in the price per 1,000 ems. He forgets that others are doing first rate compared to him and do not see any necessity for an advance. These favored ones do not desire any disturbance of the scale, and the complainant is obliged to go back to his "lean" cases, or skirmish until chance affords him an opportunity to labor upon "fatter" type. In this particular, our fellow craftsmen are guilty of gross injustice to each other; and, in the aggregate, their earnings are far less than they would be if a just and equitable plan of measurement was in force.

In Continental Europe the character of the letters themselves is taken into consideration in reckoning the labor of the compositor. There, in place of filling a line with ems, the alphabet is set up and repeated until the line is completed, and the number of letters thus ascertained to be in one line, multiplied by the number of lines he sets, shows the amount of his work in letters, and he is paid the ruling rate per 1,000 letters. There is by no means as great an inequality accruing under this plan as obtains under the arbitrary em-method, but still there is considerable inequality in the European method, for the reason that the letters of the alphabet do not occupy equal spaces. For instance, the three letters r, s, t occupy but about one-half the space of the three letters following, u, v, w, while the four letters i, j, k, l are contained in the space which is filled by the two letters following, m and n. Thus it will be to the advantage of the compositor, under this European plan, to have the line end with the letter j or l, rather than with p or q, for the advantage which is thus plainly discernible in one line is multiplied by every line he sets, and amounts to great inequality in a day's labor. Again, in converting letters into words, spaces are used which are uniform in both "fat" and "lean" type. Consequently, in measuring a "lean" font of type by the European plan, the spaces themselves are "fat." Were a plan in operation to reckon the labor of a compositor accurately, the terms "fat" and "lean" type would disappear, and when a scale of prices was based upon such a plan, it would result in equal earnings for equal labor, no matter what variations there may be in the character of the type upon which the labor is performed. One very strange feature observed in Europe is, that it is considered worth more to set 1,000 letters of small type than the same number of a larger type. This is a palpable error, and can only be accounted for by the probability that when the necessity for small type first arose, its introduction was looked upon with disfavor by the compositors, and they *imagined* it would be more difficult to handle the innovation. Their request for an advance upon the small type being acceded to without submitting the question to a fair, practical test, this inconsistency has been tolerated as a matter of custom, certainly not in justice, for every skilled compositor knows small type can be placed in position as rapidly

the United States, with the exception of the Brotherhood of Locomotive Engineers), and the United Nailers Association. The principal argument for the system is, that a foreman is paid by companies to look after their interests, and he cannot serve two masters at once. Therefore he can do no more for the men, and at the same time protect himself better by not being bound to act with the men in case of trouble.

By leaving the arbitration of troubles between proprietors and chapels to disinterested parties financially, the constitution and letter of the international law would have to be lived up to, and we would have no "smoothing over" and "patching up" of strikes, which actions on the part of union offices sometimes reflect discredit on themselves, and at the same time weaken the strength of the local union. Although it is a centralization of power, which is anything but democratic, this system is working also as one of the bulwark points of the Amalgamated Association. Will someone else dilate on these subjects?

ELIHU PALMER.

ANSWERS TO CORRESPONDENTS.

A CORRESPONDENT, writing from Ottumwa, Iowa, asks, "Please inform me at what temperature typemetal melts."

Answer.—This is rather a difficult question to answer with mathematical correctness, because all typemetal is not composed of the same component parts. Lead melts at 630°, tin at 455°, antimony at 810°. Assuming its component parts to be, lead 60 per cent, antimony 33 per cent, tin 7 per cent, a pretty accurate *average*, we should say that typemetal would melt at 800°.

A SUBSCRIBER in Austin, Minnesota, asks: "Is there any particular appliance to attach to platen presses with which an imprint can be stamped on, or impressed, or cut into fine society work, where an inked impression looks too prominent, e. g. to place an imprint upon the flap of a wedding envelope? If not, can any one mention a good scheme for the same?"

Answer.—It is *not* proper to place an imprint, under any circumstances, on the class of work referred to. If our correspondent desires to do so, however, he can run a line without ink, though it would necessitate a double impression, and the hellbox would claim it as his own when its services were dispensed with. Again, the production of "imprint" type has been reduced to a science, and Ruby small caps would certainly not cut a very prominent figure on any job.

A DISGUSTED correspondent, writing from Lansing, Michigan, asks: "Is there any absolute rule for, or standard authority on punctuation? Also, has a writer the privilege of expressing his views according to his best judgment, capitalizing or italicizing what he deems proper?"

Answer.—As an honest confession is good for the soul, we frankly admit we know of no universally recognized standard authority on such matters. Proofreaders, as a general rule, are a law unto themselves. Circumstances alter cases. What is accepted as an authority by one party, is rejected by another. Even in so-called standard publications punctuation varies. Webster and Worcester differ in pronunciation, and the Imperial in many instances disagrees with both, so it is seldom even would-be deemed authorities agree. Many of the recent innovations we consider idiosyncracies, unjustified by propriety, consistency or common sense; and we further believe that neither the editor nor proofreader has a right to change the emphasis or phraseology of a writer where no rule of syntax is violated, because different writers have different methods of expressing the same ideas, and we recognize the privilege of a correspondent to express his ideas in his own way. If he sees fit to emphasize a *particular* expression by italicizing it, he undoubtedly has the right to do so, and it is an unwarranted liberty to call that right in question. Of course, these remarks do not apply to the productions of cranks or the gross violation of universally acknowledged rules.

GREAT dissatisfaction has been expressed in London, in certain quarters, at the awards of the jury on printing and stationery, at the Inventors' Exhibition. It is alleged that several real inventions of merit have been passed by without recognition; that others have received less than their deserts, and that in more than one instance the prize has gone to the wrong party.

THE NEW CAMPBELL SHEET-DELIVERY.

Within the past year or two there seems to have been a considerable stir among printers and the builders of cylinder printing-presses over the question of delivering clean, unsmutted sheets, and whether they were best laid on the receiving-board printed side up or down. In view of the interest taken in this lately, a little history of this sheet-delivery question will not be uninteresting to printers.

The Campbell Printing Press Company have for a long time, as is well known, and, in fact, ever since the advent of the two-revolution press, used a patented device of theirs, in which the sheet is delivered from the top and front of the impression-cylinder, with the dry or unprinted side next to the fingers and tapes; and, in this way, the sheets have been delivered on the receiving-board, or pile of paper thereon, absolutely without the last printed side coming in contact with anything whatever, from the time that they left contact with the form until they were deposited upon the pile on the receiving-board. This feature of the Campbell two-revolution machine has been fully appreciated by printers; and, as the demand for fine printing increased, in which absolute immunity from smutting is a *sine qua non*, it has become so important a consideration that, within the past year or two, the other press makers have made more than their usual efforts to get something better than the various methods of delivering the sheet at the back of the press under the feed-board so long pursued by them. In all of these the freshly printed side of the sheet is brought in contact in the process of delivery either with the surface of delivery-cylinders or wheels, strings or tapes, or fly-fingers, and in a large majority of cases with the whole of them, rendering the absolutely clean delivery of the sheet impossible, and imposing upon the printer a great deal of labor and annoyance in wiping and keeping clean these fly-fingers, tapes, and delivery-cylinders or pulleys, in order even to approach to the necessary cleanliness of the sheets.

In the original Campbell device, the sheet is laid with the freshly-printed side down upon the receiving-board; and for all these years it has been considered of so small account which side up the sheet was laid, or that the pressman should be obliged to remove a sheet from the pile to examine it when laid last printed side down, that no attempt has been made by the Campbell Company to deviate from their original very simple plan, in which the perfectly clean sheet is deposited face down. Indeed, some printers have thought that the laying of the sheet face down was a positive advantage, in that it is impossible to critically examine the sheets as they are successively deposited one upon another at the rate at which the printing is done; and believing that, from this fact, it was better that the pressman should be obliged to remove a sheet whenever required to examine it, in order to escape the liability of failure to detect errors or slight defects in the work from such a cursory examination as he was necessarily confined to while the press was in motion.

"Take-offs" and "sheet-flyers" have been used in Europe for many years—some of them, in fact, antedating the adoption of the original Campbell method by the company of that name—in which the sheet was taken from the top and front of the impression-cylinder by means of traveling or oscillating grippers or gripper-frames, and deposited with the freshly printed side up upon the receiving-board; but none of them have been found practicable, or adopted by any American manufacturer to any extent, for the principal reason that they are not competent to operate successfully at the speeds at which cylinder presses are run in the United States. Numerous modifications of these European methods have been tried here in the hope of accomplishing by their means the very desirable clean delivery of the sheets so long done with the Campbell machine; but all of them have been abandoned from time to time until the Cottrell Company lately adopted a modification of the English traveling-gripper system, in which the gripper-frame is carried in long endless chains, and a system involving the use of a large number of very long tapes recently developed by the Babcock Company, and, up to this time, these are the only American devices in actual operation that have appeared for delivering perfectly clean sheets. Whatever may be their measure of success in accomplishing the desired result at the speeds now demanded by printers, it is obvious that, for simplicity and endurance, they can have no

comparison with the original Campbell machine, or with the modification of it described below.

But a great deal has been said of late as to the great advantage to the printer in the Cottrell and similar devices, from the fact that the sheet is by them deposited with the freshly printed side up, and these claims seem to have impressed printers to the effect that it really is a more desirable thing to have the sheets thus deposited than they, or at least a large number of them, had for so long believed. Perhaps, as they had not for so many years had the, to them, agreeable experience of an absolutely clean sheet deposited face up, and appreciating the importance palpably due to their always getting absolutely clean work from the Campbell machines although deposited face down, they were content enough until they found that it was within the bounds of possibility to get both, when their demands became sufficiently urgent to determine the Campbell Company to so modify their own simple and well tried method as to meet this demand or preference; and the result is that they now produce their two-revolution presses with a delivery which is a very slight departure from their original method, and which deposits the sheet with the freshly printed side up as well as absolutely without contact with any part of the mechanism in the process of delivery just as before. This device has the merit of being capable of delivering the sheets, perfectly, at any speed at which a cylinder press may be run. It removes the sheets from the fly-fingers—in the new modification only used as stripper-fingers—by means of a series of grippers which do not open to receive the sheet, but which present a series of acute-angled openings into which the leading edge of the sheet is driven and wedged by its own momentum down the fly, thus taking the sheet by an infinitesimal gripper hold. These grippers have imparted to them a path approximately parallel to the receiving-board by a very simple and ingenious series of levers, well known in mechanics as the "parallel motion;" the grippers forming the acute-angled opening in which the sheet is held being automatically opened to drop the sheet upon the receiving-board. The speed at which this device may operate, as compared with those which take the sheet directly from the impression-cylinder grippers and transfer it through the air anywhere from four to eight feet during less than half the time occupied in a complete revolution of the press, will be easily understood when it is seen that in this device the sheet has to be carried through the air only a little more than its own length during the same time. From the slow speed, therefore, at which it necessarily moves the sheet away, and from the other above described features, it can hold the sheet positively and by the least possible gripper margin (in fact requiring absolutely no margin to insure its being perfectly held) without interfering with the printing, and deposit them in a perfectly even pile at any speed the press itself is capable of. It is so simple in design and construction as to require no adjustment whatever for variation in sizes of sheet; and it never can become uncertain in action, or require a wide gripper hold on the sheet by the delivery-grippers to make it certain through wear of the parts. As the delivery-grippers never have to meet the cylinder-grippers, it requires no nicely timed motions to bring about such a meeting at so exact a point as must be governed by the narrow unprinted margins to which the printer is so often confined, and which from wear of the parts very soon become so enlarged in their limits as to render the delivery of the sheet being held by the cylinder-grippers by a narrow hold impracticable, or, at best, extremely uncertain. If a cylinder-gripper hold of one-sixteenth of an inch is taken on the sheet, this delivery is as certain as if it had been an inch; and, the delivery-grippers having no clamping action upon any assignable width of margin, a sheet printed to within an eighth of an inch of its gripper-edge will, therefore, be delivered with absolute certainty without marring the printing in the least degree. This cannot be said of any other sheet delivery in the world using grippers to transfer the sheet from the impression cylinder to the receiving-board. The original Campbell device in which the sheet was deposited with the freshly printed side down possesses the same very desirable features.

The Campbell Company have now a number of presses in operation to which this new delivery is fitted which are giving the highest satisfaction, and, of course, are now prepared to furnish their two-revolution presses with either of their forms of clean delivery, or to attach their latest modification to any of the old machines where desired.

TESTIMONIAL TO GEORGE W. CHILDS.

At the convention of the International Typographical Union in New York City last June, George W. Childs, with kindness of heart characteristic of the man, extended an invitation to the delegates and friends to visit the office of the *Public Ledger* in Philadelphia and partake of his hospitality, after enjoying which they were returned whence they came free of all expense. In acknowledgment of such a compliment a committee, consisting of M. B. McAbee, S. McNamara and M. L. Crawford, was appointed to give expression to the feelings of those assembled, by the presentation of a set of resolutions properly engrossed.

This committee, appreciating the responsibility of the position in which they were placed, took their own good time to decide how to act. Feeling, justly, that they had been honored by Mr. Childs as printers, they determined to speak by means of their own art, and the result of their labors is now ready for inspection, and submitted to those who appointed them in the hope they may have proved equal to the task imposed.

In size, the sheet is 19 by 26 inches; its design is plain, but wonderfully effective. In the language of flowers, the sweet little pansy expresses thought, and in coloring this idea is sought to be conveyed. It is printed on satin of the finest texture, lavender in color, in the center of which appears a photographic reproduction of the first page of the *Public Ledger* of June 8, on white satin, on a raised panel with beveled edges, giving it the appearance of silver.

The work appears in plain black, and the type selected is in excellent taste. The heading is formed of four-line pica rimmed Roman and ten-line modern text shaded, with graceful end flourishes, the face and form of which are in keeping with the general contour of the work; the catch line, "33d annual session," is in double English chased black, and forms, with the date in four-line heading script, a splendid base for the curve of main line, all of which is well balanced by an ornamental dash.

The preamble is admirably prefaced with a fancy initial the trailing end of which is balanced by four-line flagee in exact proportion, and is followed by that grandest of all faces, the two-line centennial script, of which the whole body is composed. The name of the recipient in whose honor the work is done is formed of two-line great primer ray shaded, and is surrounded by a number of rule flourishes, which relieve the open space and add materially to the effect.

The *Ledger* page in miniature forms a beautiful center piece surrounded with a rule border, and is supported on either side with a detailed description, in narrow measure, of the happy event, while the base is formed of an expression of thanks couched in elegant phrase, terminating with the seal on the left, the committee's names on the right, and the International Typographical Union forming the center.

As a labor of love is lightly performed, the committee have attempted to do justice to the subject, and Messrs. Knight & Leonard, who printed the work, gave it the same care as a type specimen, as its appearance abundantly shows. The mounting was done by Mr. C. H. Ward, in charge of the department of interior decorating in the house of Marshall Field, and is a masterpiece. The frame is six inches wide, with beveled edges, covered with French silk plush of a deep heliotrope color, on which are strung two rows of beaded pearls, in the center of which is a chased green and gilt molding, set into a deep channel, fastened at the corners by a silver clasp and screws.

That the committee have executed the trust committed to their charge in a highly satisfactory manner, we think will be universally conceded, but in order that our readers may form their own opinion we herewith present a reduced fac-simile of its typographic workmanship.

Copies on paper can be secured of the committee by members by inclosing ten cents for postage.

At Zurich and Berne, Switzerland, typographical clubs have been formed among the operatives. The sole purpose of these clubs is to discuss technical subjects during the meetings, to read technical papers, and to arrange from time to time small exhibitions of prominent trade subjects.

INTERNATIONAL Typographical Union,

33^d Annual Session, held in the
City of New York, June 1-5, 1885.



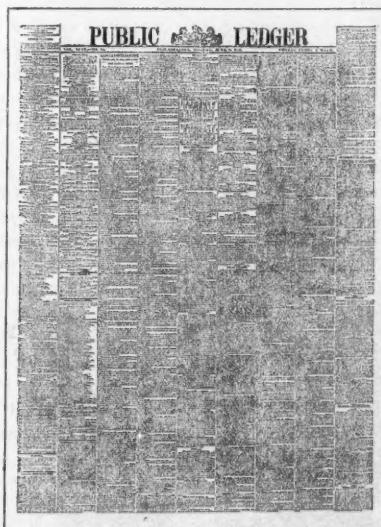
HEREAS

This Union was honored by an invitation to visit the office of the "Public Ledger," in the city of Philadelphia, and partake of the hospitality of

GEORGE W. CHILDS

and after the acceptance of said invitation the delegates and friends, to the number of two hundred, were met by his representative, Mr. James J. Dailey, and taken by special train to that city, where we were cordially received and gracefully entertained by a committee of the attaches of the "Public Ledger," accompanied by their ladies, and

Whereas, a lunch was provided, at which a cordial and hearty welcome was extended us on behalf of Mr. Childs by Mr. Joel Cook, after which we were driven in carriages to the "Public Ledger" building receiving a warm greeting from our host and were afforded every opportunity to inspect the magnificent collection of works of art in his possession, together with the printing departments of that immense establishment whence issues the paper which has ever been recognized as the staunch friend of the toiling masses, and the zealous advocate of organized labor,—and



Whereas, our party was then driven to Fairmount Park, and tendered a banquet at Belmont Mansion, where Col. M. Richards Mickle in choice language expressed on behalf of Mr. Childs the pleasure experienced from our visit, and showed by his words Mr. Childs' appreciation of the craft and the high estimate he placed upon us as its chosen representatives, which was followed by the address of President Kriller, who, in responding on our behalf, expressed to Mr. Childs the gratitude of those assembled, and in the name of the 13,000 Union printers of America thanked him for the honor done them:

Now be it Known. That, in return for the signal honor thus conferred upon our craft, we, as its representatives, deem it just and proper to offer this tribute of our affection and esteem to **George W. Childs**, whose philanthropic work has earned for him the deep and lasting veneration of an admiring world; whose boundless generosity flows like a perennial spring, and fills the record of a long and useful life with deeds of kindness to the orphan, the widow, and the homeless, and whose efforts to uphold and better the condition of the working classes entitle him to our heartfelt gratitude and praise.

All of which is hereby inscribed on behalf of the



International Typographical Union.

M. B. McABEE,
S. McNAMARA,
M. L. CRAWFORD,
Committee.

"CLICK-CLICK, GOES THE TYPE IN THE STICK."

My verses shall tell of the lessons we learn
While watching the "comp" at his case;
We see that each letter must wait for its turn
Before it is put in its place.
Then, if we have patience, fickle fortune some day
May, perhaps, pick us up with all speed;
For though fortune will smile on the hopeful and gay,
She mocks at inertia and greed.
"Click-click, goes the type in the stick,"—
She mocks at inertia and greed.

The "comp" sets his columns, one type at a time,
Till pages are piled by his hand,
And thoughts that were wrought to the music of rhyme
Are spread through the breadth of the land.
Then take heed of trifles—the precious alloy
Which gleams in the hope of success,
By trifles—mere trifles—we build up life's joy—
A trifle may mar or may bless.
"Click-click, goes the type in the stick,"—
A trifle may mar or may bless.

At last all the pages are printed and then
The types to their boxes are sent,
And there they remain, until wanted again,
Like soldiers at rest in a tent.
When labor is done, and we sleep in the grave,
Our life-book wide open will lie;
Then let us all live like the true and the brave,
The good that we do cannot die.
"Click-click, goes the type in the stick,"
The good that we do cannot die. J. B. M.

A QUICK DRYING METHOD.

It is often of the utmost importance to be able to send out circulars and other work immediately after printing. This may sometimes be effected by using, instead of writing paper, a well glazed printing paper. This will absorb the ink so quickly that, unless it be printed more heavily than necessary, it may be folded and cut at once. In this respect lithography has an advantage over letterpress, because of the pressure used having a tendency to drive the ink into the paper equally all over, and being perfectly flat, there is less tendency to set-off. If such paper be used, not only will it admit of immediate cutting and folding, but the printing itself will be sharper and better defined.

Common qualities of writing paper have a similar tendency to absorb ink, but when we come to the hard, highly glazed papers, the ink seems never to be absorbed into the body of the paper, and weeks may elapse before it becomes quite dry. It is obvious, therefore, that the printing must be done with very little ink, or something must otherwise be done to prevent set-off. This may easily be accomplished by dusting over the newly printed sheet with some fine powder that will not soil the paper, but will adhere to the ink. Of course, a white powder will be best for the paper, as long as it does not possess sufficient opacity to obscure the printing. French chalk, in powder, is a very good material, and has been much in favor; but it has the drawback of making the paper slip about during the operations of folding and cutting, giving it a slippery feel, which is unpleasant to some customers, and of being unequal in granulation, the coarsest being left to the last, when it becomes plainly visible. Calcined magnesia costs more per pound than the French chalk, but, on account of its being so very light, is really cheaper to use. It does not make the paper slippery, and is uniformly fine, so that it seems as fine at the finish of a quantity as at the first using. As compared with French chalk, it has a tendency to adhere together and remain among the sheets, but this can be prevented by attention.

In using these powders, care must be taken not to dust them on the top of the printed heap, as that would only increase the setting-off. Lay out a little of the powder conveniently to hand; take a pad of cotton wool, or a piece of loose cotton cloth, and well dust the magnesia into it for a start. Take a sheet from the heap, lay it down in a clean place and

rub the powder over the ink, leaving no superfluous quantity on it; pass it on to form one of a new heap, and continue the operation. The pad, or cloth, will require dipping into the powder about every other sheet, according to the size of the job; but care should be taken not to employ too much powder, or a second dusting, to remove superfluous powder, will be required.—*British and Colonial Printer and Stationer.*

A CHINESE NEWSPAPER OFFICE.

A reporter of the San Francisco *Report* gives us a glimpse of the interior of a Chinese newspaper office in that city:

"The life of a Chinese journalist is a happy one. He is free from care and thought, and allows all the work of the establishment to be done by the pressman. The Chinese compositor has not yet arrived. The Chinese editor, like the rest of his countrymen, is imitative. He does not depend upon his brain for editorials, but translates them from all the contemporaneous American newspapers he can get. There is no humorous department in the Chinese newspaper. The newspaper office has no exchanges scattered over the floor, and in nearly all other things it differs from the American establishment. The editorial room is connected by a ladder with the bunks on the loft above, where the managing editor sleeps, and next to it, invariably, a room where an opium bunk and layout reside.

"Evidences of domestic life are about the place, pots, kettles and dishes taking up about as much room as the press. In one instance on Washington street a barber shop is run in the same apartment with the editorial room, and, in all cases, no disposition is shown to elevate the position of the printer above his surroundings. If an editor finds that journalism does not pay, he gets a job washing dishes or chopping wood, and he does not think he has descended far, either. The manner of getting a Chinese newspaper on the press and printing it is very primitive, apparently, but serious thought upon the matter presents the question whether it would not be more adaptable in the case of small, weekly newspapers than that by which they are now published.

"Movable types are not in use in San Francisco Chinese newspaper offices. The editor takes American newspapers to friends, from whom he gets translation of the matter he needs, and after getting it written in Chinese in a manner satisfactory to him he carefully writes it upon paper carefully prepared. Upon the bed of the press, which is of the style that went out of use with the last century, is a lithograph stone. Upon this the paper is laid until the impression of the characters is left there. A large roller is inked and passed over the stone after it has been dampened with a wet sponge, and nothing remains but to take an impression upon the newspaper to be. The Chinese pressman prints three papers every five minutes, five papers in the same time less than Benjamin Franklin has a record for."

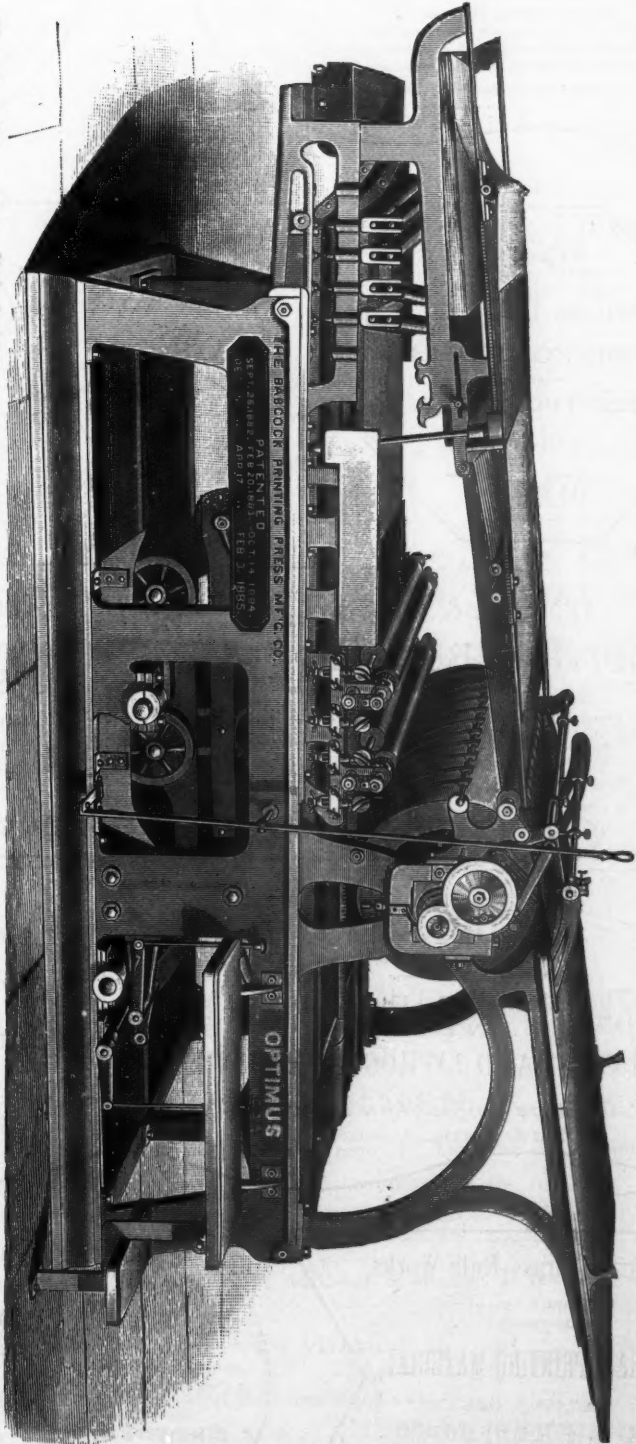
RECENT PATENTS.

The following list of patents relating to the printing interests, is specially reported by Franklin H. Hough, solicitor of American and foreign patents, 925 F street, N. W., Washington, D. C., who will furnish copies of patents for 25 cents each:

- ISSUE OF SEPTEMBER 1, 1885.
325,324.—Stereotype Plate and securing it in Printers' Forms. J. R. Cummings, Assignor of one-third to J. P. Ellacott, Chicago, Ill.
ISSUE OF SEPTEMBER 8, 1885.
325,867.—Printing-Presses. Dampening Machine for. W. Scott, Plainfield, New Jersey.
326,009.—Type-Mold. I. Baas, Jr. & L. B. Benton, Milwaukee, Wis.
ISSUE OF SEPTEMBER 15, 1885.
326,475.—Printers' Case. G. W. Butler, Chicago, Ill.
326,428.—Printers' Locking-Quoin. J. N. O. Hankinson, Harrisburg, Pa.
326,484.—Printers' Quoin. J. R. Drodzewski & J. McConnell, Erie, Pa.
326,438.—Printers' Quoin. J. McConnell, Erie, Pa.
326,415.—Printing Machine, Inking Apparatus. J. T. Hawkins, Taunton, Mass.
326,215.—Printing Machines, Sheet-Delivery for. J. T. Hawkins, Taunton, Mass.
ISSUE OF SEPTEMBER 22, 1885.
326,599.—Type, Elastic Faced Printing. R. H. Smith, Springfield, Mass.
ISSUE OF SEPTEMBER 29, 1885.
327,243.—Printing Machine. C. B. Cottrell, Stonington, Conn.
326,988.—Printing Machine. A. W. Jerome, Paxton, Ill.
326,938.—Printing Machine, Ink Fountain. T. E. Bomar, McKinney, Tex.
327,248.—Printing Machine, Inking Apparatus. T. H. Fitnam, Washington, D. C.

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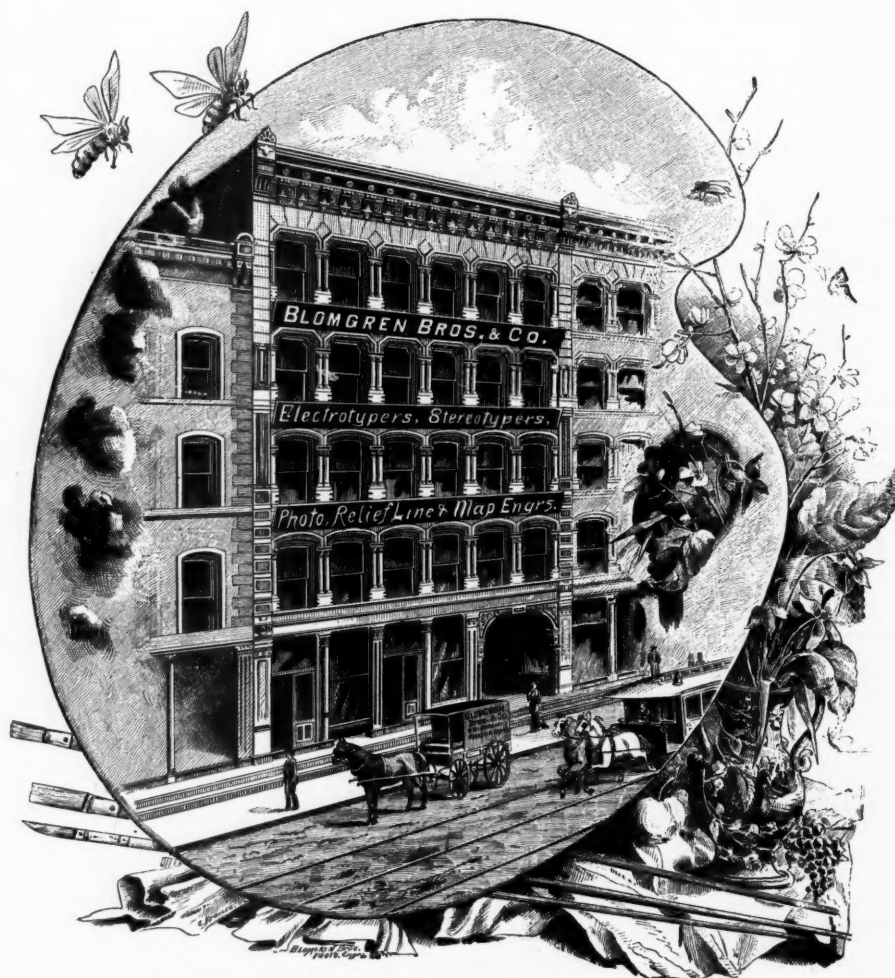
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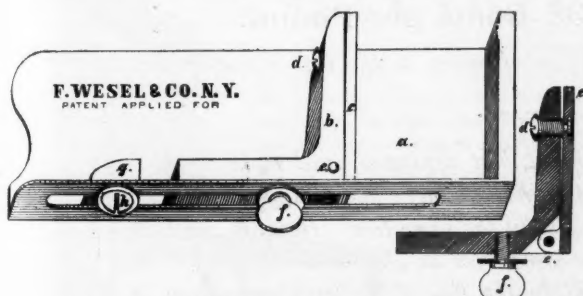
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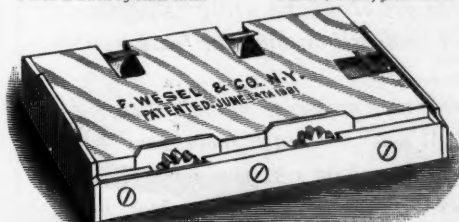


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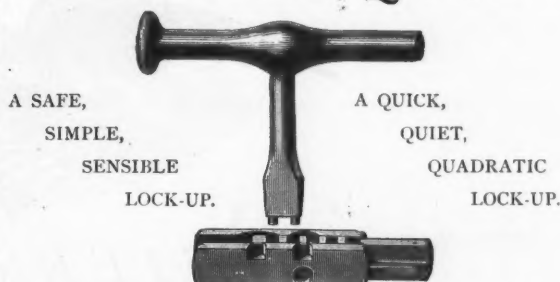
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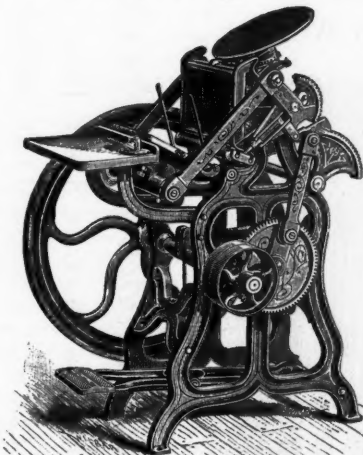
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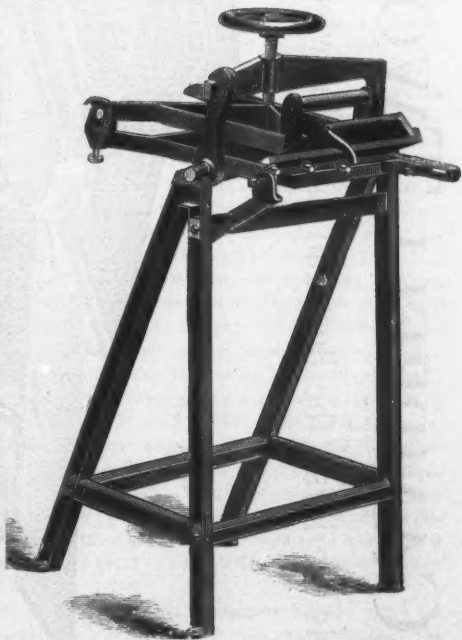
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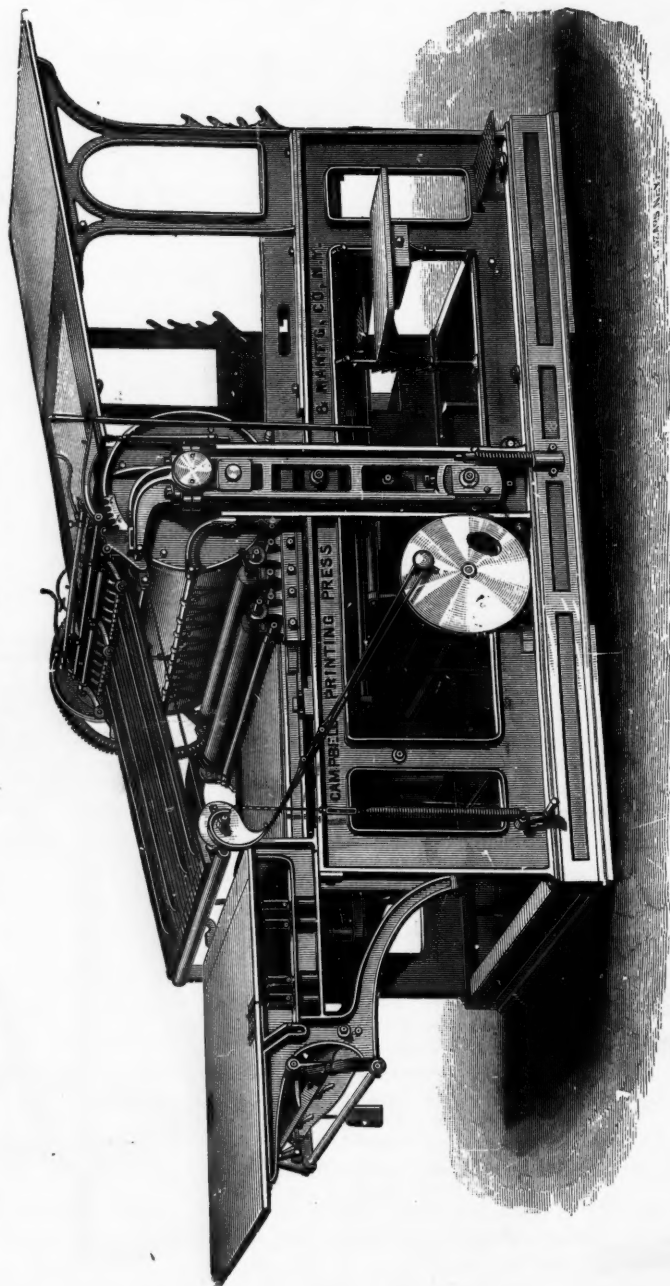
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BEING A RETROSPECTIVE VIEW OF THE PRINTERS AND PRINTING-OFFICES OF CHICAGO TO THE YEAR 1857.

BY M. J. CARROLL.

I.—BEFORE THE WAR.

THE great financial panic that swept over the country in the fall of 1857 found the employing printers of Chicago but poorly prepared for such an unwelcome visitation. Most of the offices were but recently established, and few of them possessed any financial backing worthy of mention. As a matter of fact it can truthfully be stated that the employer of that period, with perhaps a single exception, was depending upon the immediate returns from his business to meet his ordinary daily expenses. As a result of the panic, business of all kinds became exceedingly dull; commercial confidence became a commodity wholly unknown to the market; while to add to the generally prevailing sense of uneasiness and distrust, bank failures were of daily and almost hourly occurrence. The currency at that time in circulation was of such a character as to constitute in itself one of the greatest abominations with which any mercantile community was ever afflicted, being of such an exasperatingly uncertain value that it now seems a surprise that any business whatever could have been transacted. What was known as "stump-tail" or "wild-cat" currency—the bills issued by the banks holding a state charter—was the only medium of exchange in use, the value of the bills fluctuating so rapidly that a constant reference to the daily "Bank Directory" was necessary to ascertain their worth. Upon becoming the possessor of one of these bills, it would be no uncommon thing to learn after the lapse of a few hours' time that its value had depreciated all the way from ten to twenty-five cents on the dollar, representing an actual loss to the holder from which there was no opportunity of gaining satisfaction or redress.

The business portion of the city in the year mentioned was principally included in the space between the river and Madison street, and between State and La Salle streets. But even this limited district was not wholly given up to trade. Washington street was almost entirely a residence street, while some of our most pretentious dwelling houses faced the court house, on La Salle street. With the exception of South Water, Lake, Randolph, Madison and Clark streets, private residences would be found more or less frequently alternating with store fronts on every street in the so-called business district. Monroe street was a jumble of boarding houses, business houses and saloons, the block on which now stands the Rand, McNally & Co. building being covered with one and two-story frame dwellings, chiefly occupied as boarding houses. North's Theater, one of the institutions of the city at that time, was located on Monroe street, on the site now occupied by the Fire Insurance Patrol building. A large wooden boarding house stood in the center of the lot where now stands the *Times* building, while in a frame building on the corner opposite, now occupied by the *Staats Zeitung* building, a well known publican of the present time could be found dispensing the hospitalities of the place. This was where the bibulously inclined comp generally made his head quarters, and it was here this *rara avis* would at times be encountered in a more or less advanced stage of "business relaxation." State street was just beginning to push its claims for recognition as a business thoroughfare, and it is here that probably the most radical changes have taken place. The town hall, a two-story brick building, stood in the center of the street, between Lake and Randolph streets, the structure being known as South Market Hall. The upper floor of the building was designed and set apart for a public hall, wherein many of the public meetings were held, and where, on an average of once or twice a week, some benevolently inclined citizen conducted a dance for the benefit of a misfortune-burdened acquaintance. The lower floor was occupied as a public market. On the ground where now stands Marshall Field's retail store there stood a couple of two-story frame dwelling houses, the houses standing fifty or sixty feet back from the sidewalk, with a lawn and a few shade trees in front. In looking south from this point,

this highway presented all the characteristics of a residence street, with an occasional store front protruding to the sidewalk. The question of laying a horse railway track on this street was being agitated, and was met with violent opposition from many of the property owners, on the ground that it would ruin the street as a business thoroughfare, though, as a matter of fact, it proved to be one of the factors that led to the concentration of the retail trade in that locality. Two churches stood facing the court house on Washington street, one on the corner of Clark street, and one on the corner of La Salle, where now stands the recently vacated Chamber of Commerce building. Between the two churches there was a large vacant lot, and it was here the traveling circuses usually pitched their tents. The church on the Clark street corner was afterwards turned into a public hall, and was for many years known as the Mechanics' Institute Hall. Still later it underwent another change, and became the first of the mammoth billiard rooms of the city. The Western Union Telegraph office was on La Salle street, near South Water; the Board of Trade on the northeast corner of South Water street and Fifth avenue (then Wells street); and the post-office on Dearborn street, midway between Randolph and Washington. Rice's Theater (I believe the first permanent theater erected in the city) was almost directly opposite the postoffice, and on the site now occupied by Rice's building, where the union met for some years subsequent to the great fire, while the building of McVicker's Theater was just put under way. The largest retail dry goods house of the city, that of W. M. Ross & Co., was situated on Lake street, near Fifth avenue, and Cooley, Farwell & Co. (J. V. Farwell & Co.) monopolized the wholesale dry goods business in a store on Wabash avenue, near Lake street. Potter Palmer was also in the dry goods business at this time, and was located in a store on the north side of Lake street, between Clark and Dearborn.

The two principal hotels were the Tremont House, a five-story brick building occupying its present site, and the Richmond House, situated on South Water street, near the Illinois Central Railroad depot. The latter house was probably the more exclusive and fashionable hotel of the two. It was here that the Prince of Wales and party stopped during their visit to Chicago in the summer of 1860. But the Tremont House, which was at that time under the management of the Messrs. Gage Brothers & Drake, and being in the center of the business district of the city, was unquestionably the rendezvous of the masses during all periods of popular excitement, and notably during the memorable political campaign of 1860, and later, during the exciting times incident to the War of the Rebellion which so quickly followed. The house was surrounded on the Lake and Dearborn street sides by an iron balcony, running under the second story windows. It was from this balcony that the famous statesmen and politicians of the day were wont to address the assembled multitudes in the street below. It was here the writer, in company with a party of boys of his own age, mingled with the throngs in the street to hear those two great men, Abraham Lincoln and Stephen A. Douglas, being equally loud and boisterous in our applause of both—an indication that we were not at that early day open to the suspicion of being "offensive partisans." The court house stood on the same ground as at present, the building occupying but a comparatively small portion of the block, being surrounded on all sides by an open space, which answered the purposes of a public square. It was here that many of the open-air public meetings were held, the speakers holding forth from the steps of the court house, and it was here, on the occasion of many public gatherings, that the late Frank Lombard (then one of the best known and most popular men of the city) could be heard in his matchless rendering of patriotic songs.

The location of the regular daily newspapers, together with a list of the most prominent men connected with them, was as follows: The *Evening Journal*, at 50 Dearborn street, Charles R. Wilson, publisher; Andrew Shuman, editor; Benj. F. Taylor, literary editor; G. P. Upton, city editor. The *Chicago Tribune*, 51 Clark street; Ray, Medill & Co., publishers; Alf. Cowles, business manager. The *Democratic Press*, 49 Clark street; Scripps, Bross & Spears, publishers. The *Chicago Times*, 53 and 55 LaSalle street; Cook, Cameron & Sheahan, publishers; James W. Sheahan and F. A. Eastman, editors; and Andre Matteson, city editor; Daniel Cameron, business manager. The

Chicago *Democrat*, 45 LaSalle street; John Wentworth, publisher; John Wentworth and Joseph K. Forrest, editors.

The above, while it does not include all of the papers then published in the city, embraces all that was looked upon as the permanently established institutions of the kind then in existence, for to the gentlemen noted above belong the credit of establishing journalism on a sound and substantial footing in this city. They were not, certainly, the pioneers in the business. There had been numerous papers started before these, advocating every shade of political and social faith, but whose existence had generally been as brief as the financial results had been unsatisfactory. That the gentlemen named are entitled to the credit of giving durability and permanency to their work will not be questioned when I mention the fact, that with the single exception of the Chicago *Democrat*, these papers have withstood the vicissitudes of time, and exist in one form or another to the present day.

In looking over the list of publishers and editors I find that death has been busy in their ranks, as many of them have long since ended their earthly career. Of this number are Charles L. Wilson, of the *Journal*, Dr. Ray (a very forcible and accomplished writer) of the *Tribune*, Spears and Scripps, of the *Democratic Press*, and James W. Sheahan and Daniel Cameron of the *Times*. Sheahan was one of the most popular editors this city has ever known, and ranked deservedly high as an editorial writer. In company with Eastman and Matteson he founded the *Morning Post* some few years later. The venture proved a financial failure, when Mr. Sheahan entered the services of the *Tribune* as an editorial writer, where he remained until his death, which occurred some three or four years since. I believe the rest are living, some of them standing loyally by the same papers with which they were connected so long ago. Andrew Shuman is still chief editor and one of the publishers of the *Journal*, while of his early colleagues on that paper, G. P. Upton has been for many years an editorial writer on the *Tribune*, and Benj. F. Taylor is living in Cleveland, Ohio. Joseph Medill still sways the destinies of the *Tribune*, and Alf. Cowles and Deacon Bross are, I believe, in some way connected with the paper. The only one of the early publishers of the *Times* who has withstood the ravages of time is Andre Matteson, who after various journalistic ventures finally returned to the editorial force of the *Times*, where he is at present engaged. George M. Kennedy, who was shortly afterwards city editor of the *Times*, enlisted during the war, and became Major of the 65th Illinois Volunteers. John Wentworth, proprietor and publisher of the Chicago *Democrat* retired from business in 1861. He was perhaps the only person connected with the printing or publishing business at that time who could boast the possession of any considerable amount of wealth. With the exception of an occasional dash at politics, Mr. Wentworth has since lived in the enjoyment of his ample means. Jos. K. C. Forrest, his editor, is also living in this city. Daniel Cameron, who has been mentioned as one of the publishers of the *Times*, was a brother of A. C. Cameron, the efficient editor of THE INLAND PRINTER. He was afterwards connected with numerous newspaper enterprises in this city, and attained a conspicuous and well-merited prominence during the war. He has been dead some years.

In addition to the papers mentioned, and which embraced all that was then regarded as the regular daily papers of the city, there were a few other concerns striving for recognition, but whose efforts did not seem to meet with popular favor. Perhaps the most prominent of this class of publications were the *Commercial Express*, published by P. L. & J. H. Wells, at 69 Lake street; the *Daily Union*, by the Union Publishing Company, at the corner of Clark and Washington streets; and the *National Democrat*, at 240 Randolph street, and of which M. Diversey and L. Schade, were the publishers. The firm of P. L. & J. H. Wells, noted above, was a short time afterwards changed to Wells & Adams. The business they conducted was of the same nature as that now controlled by the popular firm of Howard, White & Co., but was of course but a faint foreshadowing of what that business has since assumed in magnitude. M. Diversey, of the *National Democrat*, was a prominent and wealthy brewer of the city, and I should judge by the name of his paper, that the enterprise was an attempt on his part to offset whatever efforts the mugwumps of the newspaper fraternity were then making to harass the administration.

The job printing-offices of that day were literally flung together, apparently without any well defined idea on the part of the purchaser as to the exact nature of the business he was about to embark in. An inspection of the average office could not fail to suggest the notion that the proprietor was prompted by no other desire than the accumulation of a certain amount of printing material, unmindful of the future use to which it was to be put, with the invariable result that it turned out entirely unsuited for the class of work he succeeded in picking up when he announced himself ready for business.

With few exceptions, the principal jobrooms were owned and run in connection with the daily newspapers, and were all situated within a couple of blocks of each other. In fact, every daily newspaper in the city at that time abutted on the alley-way running east and west between Lake and Randolph streets, and then known as Couch place. The *Evening Journal* stood on the northwest corner of this alley and Dearborn street, facing the Tremont House. The *Democratic Press* and Chicago *Tribune* occupied the north and south corners of the alley and Clark street, respectively, facing west, while the offices of the Chicago *Democrat* and Chicago *Times*, were on the corner of the alley and La Salle street, also facing west. It will be seen by the foregoing that in order to pay a visit to the daily papers of the city at that time, all that was necessary was a walk of two blocks east or west through this alley-way, when the probabilities would be strongly in favor of your meeting one or more of the nabobs of the Chicago press on your journey, for this thoroughfare, which then might be termed the Newspaper Row of Chicago, was used in common by nearly everybody connected with the newspaper offices, whether upon business or pleasure bent. Many a time has the writer seen the stalwart form of "Long John" Wentworth as he passed through this alley-way to and from his office to the Tremont House. To my youthful eyes he appeared a veritable Goliath, as he towered above a crowd of diminutive newsboys, who generally followed him, and who often found it to their benefit to be in John's immediate vicinity when he was seized with one of his peculiar and characteristic spasms of generosity. Wentworth was at that time in the prime of his manhood, and at the height of his popularity. He was a man of immense stature, standing nearly seven feet high and weighing about 300 pounds. He had been a member of congress and mayor of the city, to both of which positions he was afterwards again elected. It can be truthfully said that if Chicago at any time acknowledged the dictation of an autocrat in the disposal of all public questions, the Hon. John Wentworth came nearer occupying that position than has been the case with anyone since.

As many of the printers of that time are still in harness, and as more of them will be well remembered by those of the present generation, I presume that a brief account of where they were then employed, together with their present whereabouts, so far as can be ascertained, will be of interest. The *Journal* jobroom was under the foremanship of Mr. T. C. Haynes, who has been for several years superintendent of Rand, McNally & Co's, James H. King, C. H. Blakely and H. F. Eastman were among the compositors employed, while the writer filled the responsible and indispensable position yecept the devil. John Buckie, Jr., and T. Hollis were the job pressmen, and old John Amandson had charge of the newspaper press. The newsroom, which was at this time a non-union office, was, I believe, run under a contract of some kind. W. R. C. Bowes and L. C. Boudreau were apprentices there. Of the above King, after filling many responsible positions and becoming one of the best known printers in the city, died a couple of years ago from a malignant cancer, with which he had become infected some time previously. Eastman and Amandson are also dead. C. H. Blakely has been for some years the head of the firm of C. H. Blakely & Co. John Buckie, Jr., is the well known roller manufacturer, of this city, while Bowes and Boudreau are still disciples of the art. At a somewhat later period John White, James Rattray and John Camberg were also employed at this office. Rattray died a few years ago, and John White has been for years a member of the firm of Howard, White & Co. John Camberg, than whom there is no more efficient pressman, has been for a long time foreman of one of Rand, McNally & Co's pressrooms, where he gives ample evidence of the careful training he received at the hands of that master workman, Charles Zeller. C. B. Langley was foreman of the newsroom of the *Democratic Press*, and Joseph C. Snow

was a compositor there. Snow can well lay claim to being a veteran, for with the exception of a very brief time, when his brain was filled with visions of the untold wealth he would control when he became a silver king, he has been unremittingly engaged at the case since. Langley has been for some time an employé of the postoffice. John T. Holt was foreman of the jobroom at this place, which was quite an extensive one, and gave employment to a large number of men, among whom were G. K. Hazlitt, John Collins, J. A. Van Duzer, Fred Vazt, and others. Hazlitt became president of the union in 1864, and was known as a somewhat radical though very capable advocate of the rights of labor. The forcible manner in which he administered the obligation to new members left a deep impression on my mind for years after undergoing the ordeal. He is now the head of a prosperous printing establishment here, though I am sorry to say he no longer swears by the union. John Collins was for many years foreman of the *Journal* jobrooms, and is still among us, as is also J. A. Van Duzer. John K. Conklin was foreman of the *Tribune* newsroom, and Ed. Irwin and John Anderson were among the compositors. Conklin was a foremost figure in the printing business here for years, and is now living with some relatives on a farm near Buffalo, New York. Irwin is still on deck, and working as much as his failing health will admit. John Anderson has prospered in the world, and is now proprietor of an extensive printing establishment on the west side, where work in foreign languages is made a feature. Wm. A. Hornish and E. S. Davis, with several others, seem to have rotated in the foremanship of the *Times* newsroom so rapidly that it is hard to tell at this distance who held the position at the particular time of which I write. Both of the gentlemen named are still at the case, although I hear that Davis has recently been appointed to a position in the United States marshal's office. C. H. Brennan, who now runs a joboffice on Monroe street, was foreman of the jobroom at the *Times*, and A. C. Cameron, R. V. Shurley, H. P. Boener, Edward Rummel and Dominick Davis were employed there. Of these Boener has been for a long time superintendent of an office in Danville, Illinois. A. C. Cameron was for many years publisher of the *Workingman's Advocate*, I believe the first paper issued in this city in the interests of the laboring classes. He is now the editor of *THE INLAND PRINTER*. Edward Rummel became interested in politics, and was secretary of state during Governor Palmer's administration. Dominick Davis is now the efficient superintendent of the National Printing Company, of this city. The newsroom of the *Democrat* was under the charge of Mr. A. M. Tally, a highly respected member of the craft, who had acquired the title of the "Watchdog of the Treasury," on account of the excessive growling he would indulge in when the boys would exercise any undue liberality in voting away the funds of the union. Fred. Garside was foreman of the jobroom at this office. Both of these gentlemen have been dead for many years.

(To be continued.)

PERSONAL.

MR. GEORGE REED, of the Dennison Paper Manufacturing Company, of Mechanics Falls, Maine, is at present in our city.

THE Hon. Joseph Medill, the venerable editor of the *Chicago Tribune*, has just returned from an extended visit to the Pacific coast, reinvigorated in mind and body.

MR. J. A. KIMBERLY, the extensive and well known paper manufacturer, of Neenah, Wisconsin, recently paid a somewhat extended visit to our city on business interests.

GEO. H. SANBORN, of the firm of G. H. Sanborn & Sons, 59 Beekman street, New York, has recently been in our city on business interests. He speaks hopefully of the outlook.

MR. HENRY GIBSON, of Gibson, Miller & Richardson, Omaha, Nebraska, honored Chicago with a visit a few days ago. He was warmly welcomed by a number of our manufacturers connected with the printing trade.

MR. S. K. ABBOTT, of Boston, Massachusetts, while on a tour of observation in the western metropolis, was heard to remark that Chicago had, in his opinion, the largest bindery in the United States, which is a good deal for a Bostonian to admit.

BUSINESS OUTLOOK.

UNION TYPEFOUNDRY.—Inquiries brisk.

R. HOE & Co.—Business steadily improving.

FARMER, LITTLE & Co.—Material increase in inquiries.

F. P. ELLIOTT & Co.—Trade very good, but competition keen and margins low.

BLOMGREN BROTHERS.—Business rushing. All they can do in every department.

C. B. COTTRELL & Co.—Business good and improving, and orders are coming in rapidly.

ILLINOIS TYPEFOUNDING COMPANY.—Business good and improving, outlook encouraging.

CAMPBELL PRESS AND MANUFACTURING COMPANY.—Trade as favorable as could be expected.

OSTRANDER & HUKK.—Business good. Mr. Ostrander has recently returned from an eastern trip with a large number of orders.

THE DONNELL MANUFACTURING CO.—Business good and prospects bright. Have more orders than can be filled for some time.

SHNIEDEWEND & LEE CO.—Trade better than last month. In the machine department have all the orders they can possibly attend to.

CHICAGO PAPER CO.—Quite an improvement in business. Have recently figured on a good many orders, and got a good share of them.

GEO. H. TAYLOR & Co.—Business brisk. Have recently secured several large contracts, and are about closing up others with the *Mail* and *Inter Ocean*.

SNIDER & HOOLE.—Little, if any, material change from last report. Don't expect a boom, but do expect a steady, legitimate increasing business.

J. W. BUTLER PAPER CO.—Trade about the same as last month. Considerable life to it and considerable competition to secure it. Upon the whole, business is very good.

MARDER, LUSE & Co.—Business improving, but competition close. Inquiries, however, are increasing day by day, and every mail brings fresh orders. Believe good times have come to stay.

BARNHART BROS. & SPINDLER.—Trade since last report has been very satisfactory. The business transacted in September, 1885, exceeded in volume that transacted in September, 1884, and the outlook for October is of the most favorable character, though margins continue small.

LOCAL ITEMS.

MR. GEO. F. BORDEN, with L. L. Brown Paper Co., Adams, Massachusetts, paid us a social visit a few days ago.

We had the pleasure of a visit from M. C. T. Van Gordon, of Elgin, Illinois, who, by the way, is a great admirer of *THE INLAND PRINTER*.

THERE is some talk of reducing the size of type now used on the *Telegraph*. If the project is carried into effect it will give employment to five more compositors.

THE headquarters of Samuel Bingham's Sons will in future be found at 202 South Clark street, where old customers and new customers will be heartily welcome.

THE other morning in coming down on the street cars we heard a little urchin yelling, "Here's your *Sun*, eight papers, eight pages, all for a penny, worth that much for old rags."

THE W. O. Tyler Paper Company recently sold in one day twenty-six car-loads of manilla, print and miscellaneous paper, amounting in all to \$21,600, ten car-loads of which went to New York.

JASPER E. SWEET, a member of No. 16, who killed Dr. Waugh in defense of the honor of his family, has been exonerated by the grand jury, and will return to his situation in Clark, Longley & Co's.

THE proceedings of the thirty-third annual session of the International Typographical Union held in New York City last June, has been received at this office. It contains two hundred and fifty-eight pages,

two pages more than the proceedings of 1884. It is from the press of McCalla & Stavelly, Philadelphia. Its composition and presswork is an honor to the firm. We shall have occasion in the future to refer to its contents.

THE DONNELL MANUFACTURING COMPANY have recently furnished Cameron & Amberg, of this city, with one of their thirty-four-inch Chicago cutters. They have also on hand twenty-seven unfilled orders for their wire stitchers.

REMOVAL.—The well known firm of Snider & Hoole intend removing to new and commodious quarters, 178 Monroe street, on or about the 15th inst., when they will be better prepared to attend to the increasing demand of their business.

GEO. H. TAYLOR & Co. has contracted to furnish the *Pioneer Press* Company of St. Paul, with paper. This is the first time in twenty years that the company has given an order away from home. The contract will amount to \$60,000 a year.

THE Chicago Public Library, now eleven years old, and established through the persistent exertions of Thomas Hughes, Esq., of England, contains 111,621 volumes, and has the largest number of readers of any library in the country, except that of Boston.

No Chicago printer should fail to subscribe for THE INLAND PRINTER for the ensuing year. The series of articles giving the history of the printing-offices in this city, the first installment of which appears in the present issue, will alone be worth ten times the amount of subscription.

CHICAGO TYPOGRAPHICAL UNION, at its meeting held September 27, appointed a special committee to draft suitable resolutions of respect and condolence upon the death of Hon. Emory A. Storrs, who was an honorary member of the organization, and who in the month of February last delivered a lecture under its auspices in behalf of the cemetery fund.

THE printing business in general in Chicago has improved somewhat since our last issue, but too many of the fraternity make this city their headquarters, and work is difficult as ever to be obtained. Secretary-Treasurer Rastall reports seventy-two arrivals by traveling cards during the month of September, and as a consequence the supply of idle printers is as large as usual.

THE CHICAGO BRASS RULE WORKS.—By reference to our advertising columns it will be seen that this establishment is again in successful operation at 84 Market street, under the management of J. P. Trenter, one of the most efficient workmen in his line of business in the United States. Parties desiring such material would do well to give him a call before purchasing elsewhere.

WE understand a movement is on foot to effect an organization of the old-time printers of this city, and that the project has met with universal favor among employers and employes alike, several of the former having signified their desire to have their names enrolled in its membership. If carried into effect it is more than likely that steps will be taken to have an annual banquet and social reunion. We think the idea an excellent one, and wish it every success.

EDWARD IRWIN, ex-president of the Chicago Typographical Union, who has been ill with lung complaint for the past two years has been made to suffer further affliction. The supports of his family, the eldest son and daughter are now incapacitated, the young man having been injured by a railroad accident, and the daughter attacked with hemorrhage of the lungs. A movement is now on foot to substantially aid the family, which we sincerely hope will meet with the success its worthy object deserves.

THE marriage of Mr. Edward Langston and Miss Harriet, daughter of Mr. and Mrs. Geo. C. Coxhead, was solemnized Thursday evening, September 24, at 7 o'clock, at the residence of the bride's parents, No. 1145 West Taylor street. A large number of the relatives and friends of the contracting parties were present to witness the ceremony, which was performed by Professor J. B. Wilcox, D. D., of the Chicago Theological Seminary. The bride and groom were attended by Mr. and Mrs. Geo. C. Coxhead and Mr. and Mrs. Geo. T. Coxhead. The young couple have a wide circle of friends who wish them a future full of joy and prosperity. The groom has long been connected with the

printing department of the J. M. W. Jones Stationery and Printing Company. After a late hour Mr. and Mrs. Langston departed for their new home, which is in course of completion at Pacific Junction. The newly married couple were the recipients of many useful and beautiful presents.

A SERIOUS CRASH.—A few nights ago the four-story building situated in the rear of 196-198 South Clark street, in which were located the machine shops of C. B. Cottrell & Co. and the workshop of Sam'l Bingham's Son, roller manufacturer, fell with a crash, involving the whole structure in a common ruin. It is claimed that the two upper floors, occupied as storage room, were unable to sustain the strain to which they were subjected, and collapse was the result. It is providential that the accident took place at an hour when the building was comparatively unoccupied, otherwise the loss of life must have been appalling.

A GENUINE CHUMP.—Going home the other evening rather late, we were accosted by a little waif in the shape of a newsboy, who, with tears in his eyes and a pitiable story, implored us to purchase his three remaining papers. His look, so honest and earnest, overcame our scruples, and we relieved the little fellow of his burden, apparently much to his delight. As soon as we had done so, however, another street arab approached us with the salutation, "Say, Mister, dat coon's a d—d fraud. He goes round 'mong us fellers at night, and says his mudder's dyin', and all dat, and we gives him de papers we can't sell; den he goes for de chumps, and cries and cries, and de folks buy dem of him. Den he lets a penny drop on de sidewalk and cries again, and de folks help him look for it, and say, never mind, bubby, here's five cents, and den he makes off a'laffin. We's just tumbled to his racket, and we's agoin' to tell every chump dat buys a paper of him de kind of kid he is. Dat fellow can cry any time he wants to. Anyhow, he's got to leave dese diggin's or get his head busted."

LAIID OVER.

Owing to the press of matter on our columns we have been reluctantly compelled to lay over several contributed articles, illustrations, review of specimens, etc., till our next issue.

OF INTEREST TO THE CRAFT.

UNION wages in Honolulu are sixty cents per thousand ems.

MEMPHIS Union now boasts of one hundred and fifteen members.

THE state of Texas boasts of six-hundred and twenty-five newspapers.

JOHN R. McLEAN, says it costs \$6,000 a day to run the Cincinnati *Enquirer*.

THE Omaha *Daily Evening World* is a new venture in that enterprising young city on the big muddy.

DURING the month of September four new unions were organized in Pennsylvania, Williamsport being the last.

THE newspapers of the world have just been reckoned up at about 35,000, thus giving one to each 28,000 inhabitants.

A NEW evening daily, on the coöperative plan, has recently been established in Sacramento, by the printers of that city.

FORTY-ONE daily newspapers have died in New York within the past twenty-five years, and millions of dollars were sunk in trying to keep them afloat.

THE property of the publisher of the Boston *Congregationalist* has been attached on a libel action for \$100,000, by Edward P. Tenny, of Manchester, Massachusetts.

THE New York *World* compositors have a new rival to put up against McCann, who beat their representative, Somers, in the typesetting contest last June. His name is Barnes.

THE New York *Star* has resumed publication as a daily morning paper. The editor-in-chief is ex-Congressman Dorsheimer, and the managing editor, T. M. Cook, formerly of the *Sun*.

KNOXVILLE, TENNESSEE, publishes no paper on Monday, thus allowing the printers to keep the Sunday strictly. It is said to be the only city in the United States having thirty thousand inhabitants, with

railroads, steamboats, telephones and telegraphs, that has no Monday morning papers.

A NEW Bullock perfecting press has been put up in the government printing-office at Washington, which will roll out twelve thousand of the fascinating *Congressional Record* an hour, next winter.

THE Cemetery Committee of the San Francisco Typographical Union have lately put new headstones and planted grass and flowers over the graves of its deceased members at a cost of \$500.

OSWALD OTTENDORFER, editor of the New York *Staats Zeitung*, has presented his native city of Zwittau, Austria, with the sum of 200,000 florins, to be devoted to the erection of a hospital and orphan asylum.

As far as we can learn, Memphis is the banner printing city in the United States (unless it is Washington), there not being a non-union office in the city. We want to see other trades able to say the same.—*Memphis Record*.

HORACE GREELEY is said to have suggested the name of Colorado for the state that bears that name in a speech to the miners on territorial government, delivered at Denver, on his famous stage ride across the continent.

MISS JENNIE MITCHELL is a compositor on the *Republican*, of Findlay, Ohio, and displays considerable artistic ability on the display "ads." It seems that Jennie puts in a claim for a share of the fat, and knows how to set it, too.

THE first printing-press in America was used in Mexico as early as 1535, and on it was printed a school book entitled "The Spiritual Ladder." The first printed production in the English language was the "Freeman's Oath," and bears date, 1639.

GEO. H. BIDWELL, aged sixty-five, of the firm of Holmes & Co., printers of New Haven, Connecticut, committed suicide, September 6, by shooting. He was for twenty-five years connected with New York journals, and was the compiler of a "Ready Reckoner," bearing his name.

A PAPER to be called *The Alaskan* is to be published in Sitka. It will be devoted exclusively to the development of the material resources of the territory. It will be published weekly, at \$3 a year. The first number will appear about a month hence. The paper will be printed by an association formed for that purpose, under the name of The Alaskan Company.

F. W. HAYDEN, a one-armed printer, is at present working on a case in the Youngstown *Daily News* office. Two years ago he lost his right arm in a railroad accident, and since then has been making his left arm and hand do the work of two in setting type. Without exertion he is able to set 6,000 ems a day and can distribute 2,000 ems an hour. His stick is placed on the case, in which two notches are cut to hold it firmly, and the rapidity with which he fills the stick is something remarkable.

J. J. AYERS, state printer, who has just been on a lengthy trip through the East and Europe, has returned, bringing many new appliances for the state printing-office at Sacramento. As the state is about to publish the text-books to be used in the public schools, a large number of presses and vast quantities of new type, including an amount deemed necessary for the printing of the books, have been added to the office. A forty-horse power engine has been introduced. A bindery that cost \$11,000 is being added by workmen. All modern improvements in the machinery used in binding are to be brought into use. It is said that the new bindery will be able to turn out 3,000 new books daily. When the book publishing commences over a hundred persons will be given employment in the office.—*Pacific Printer*.

FOREIGN.

THE French National printing-office was established in 1640, and is still maintained.

ROME, with its 300,000 inhabitants, has about thirty daily papers, and more than a hundred weeklies.

THE Sydney (Australia) Typographical Union has gained the day with regard to the increased minimum of pay. On July 1 the eight-

hour movement and the minimum rate came into operation. No society man will receive less than \$14 per week.

THE Manchester *Guardian* has recently purchased a Campbell lithographic machine, which gives satisfaction.

THERE are fifteen hundred printing-offices in London, according to an estimate made from *Kelly's Printers' Directory*.

IN thirty-eight years the number of English daily papers has increased from fourteen to one hundred and seventy-nine.

THE laws of Japan require six months' notice to be given of intention to publish a magazine, and one month's notice for publishing a book.

THE Milan School of Typography was inaugurated on the 21st of June, in the presence of several leading printers and municipal personages.

A NEW paper is shortly to be issued in England, entitled the *Linguist*. It will be in five languages—English, German, Italian, Spanish and French.

MR. C. J. DRUMMOND, secretary of the London Society of Compositors, has been appointed treasurer of the newly formed Industrial Representative League.

THE master printers of Paris contemplate establishing a mutual fire insurance association, with a view of effecting the insurance of printing offices at a lower premium.

A GENERAL manager is wanted for the great publishing house of Cassell & Co., London, Mr. Robert Turner, who has filled the position for many years being about to retire.

THE funds of the London Society of Compositors still continue to increase, \$5,900 having been added between March and the end of June. The members now number 6,325.

COMPOSITORS in Belgium have rather a precarious living. The daily wages at Namur and other towns varies from 45 cents to 65 cents; in smaller places, from 35 to 55 cents.

THERE are fifty printing establishments at Athens, Greece, most of which however, possess only hand presses. Twelve daily papers are published there, besides several weeklies and monthlies.

THERE are four daily papers in Lima, South America, all published in the evening, with cable dispatches from Europe and the United States. They do not make their appearance on the street until 10 P.M.

THE *Nacion*, of Buenos Ayres, is a colossal paper. Its sheet measures fifty-two inches by forty, and weighs seventy grams. Each page consists of nine columns. It is worked on a Marinoni machine.

MR. TENNANT, lately a member of parliament from Leeds, will commence next November the publication in Rome of a semi-weekly journal in the interest of the American and English colonies in the Holy City.

THE report of the British Medical Association, read at the annual meeting of that body recommended that \$50,000 be expended on the purchase of a central site in London for the purpose of the erection of a printing-office.

THE proprietors of a clothing establishment in Liverpool are issuing Dickens' "Old Curiosity Shop," at one penny. The work consists of one hundred and forty pages, and contains five illustrations from the "Household Edition."

THE syndicate chambers of French employers have been combined into two unions. The one, the Union Nationaux, numbers eighty-one branch associations, the other the Comité Central, has forty-six syndicates, and is organized on a more aristocratic basis.

A COMMITTEE of European and Japanese philologists was appointed by the Government to decide upon the best method of using Roman types instead of Japanese ones in writing. They have compiled a dictionary in Roman types, the printing of which has just been completed.

A PARIS reviewer has had the frankness to point out that of the twenty celebrations of the invention of printing not one was held in France. Germany, Holland, Belgium, England, Italy, Austria, Switzerland, Sweden, Russia have all had their festivals; France has done

nothing. France had books printed as early as 1470, but the three earliest Parisian typographers, Gering, Franz and Friburger, were Germans, as were most of their early successors.

In many of the German printing-offices gas is replacing steam as a motive power, as it proves to be not only cleaner and handier, but also cheaper in the long run. The large office of the Cologne *Gazette*, which does jobwork on an extensive scale, has abandoned steam and substituted gas.

A SMALL rotary jobbing press, constructed by M. Charles Barre, of Paris, to work at from fifteen to eighteen hundred impressions an hour, is spoken of very favorably, its price being from twenty-five to thirty percent below that of the ordinary treadle platen machines. It is exhibited at the Antwerp exhibition.

THE most profitable newspaper in the world, the London *Times*, is valued at \$25,000,000, and the most profitable in France, the *Petit Journal*, earns \$600,000 a year, net, although a dozen years ago it was insolvent. The London *Standard* is valued at \$10,000,000, the *Daily News* at \$6,000,000, and \$5,000,000, would not buy the *Telegraph*.

THE scheme for the formation of the Printers' Schools in France (Les Ecoles Gutenberg), has been formulated. There are to be four classes of members—founders, active and honorary members, and donors. Founders are to give not less than five hundred francs, active members one hundred and fifty francs a year, and honorary members fifty francs a year.

THE great publishing and printing business of Velhagen & Klasing, at Brelefeld and Leipsic, celebrated, on the 12th of August, the fiftieth year of its existence, in commemoration of which the firm has made a donation of fifty thousand marks (£2,500), to their work-people as a benevolent fund for the widows and orphans of the operatives.—*Printers' Register, London*.

WE read that Mrs. Radhabai, widow of the late Mr. Atmaram Sagoon, recently established a business on her own account as book-seller and stationer, pending the result of a suit affecting the estate of her late husband. The fact of a Hindu widow having done this is most significant. It is probably the first time that a respectable Hindu widow has ventured to carry on business in her own name since the laws of Manu were written, three thousand years ago, and we may hope that it is a step in the direction of female emancipation, which will not be without its effect in other part of India.—*British and Colonial Printer and Stationer*.

THE German Printers' Society has just made its annual report. There are 19,000 journeymen employed in this occupation, 15,000 belonging to the workmen's syndicate, and 4,000 to a second syndicate controlled by the employers. The greatest evil under which they labor is the excessive multiplication of apprentices. These are stated to be 8,000. In two years and a half 1,107 persons had quitted work on their account, receiving relief from the society, and in fourteen years half a million of francs had been spent on this account. The members of the society for help in sickness number over 9,000, having a fund of half a million of francs.

THE Roman character seems to be gaining on the Gothic in Germany. Last year there were printed in that country and in Austria 163 works upon linguistics which used the latter characters, while 390 were in Roman. Of works relating to medicine, natural history and the physical sciences, 149 were in Gothic letters, and 720 in Roman. It is worthy of note that the organ of the German Printers' Union, in this city, is issued in Latin characters. The forms used in England, France and Italy are much clearer to the eye, allow greater variety, and better presswork than those founded upon the models of Faust and Gutenberg.—*The American Bookmaker*.

THE TYPEFOUNDRIES OF GERMANY.—In thirty-two towns of the German Empire there are eighty-six typefoundries, employing altogether 825 journeymen and 178 apprentices. Strangely enough the wealthiest city of its size in the empire, and probably in all Europe, Frankfort-on-the-Main, leads off as the type-producing center of Germany, its foundries employing 172 journeymen and 24 apprentices; while those of the imperial city, Berlin, employ 161 journeymen. Offenbach, a small town quite near to Frankfort, has 86 journeymen and 44 apprentices.

Leipsic, familiar to Americans as a printing center, employs 161 journeyman typefounders. The commercial city of Hamburg has in her typefoundries 72 journeymen and 22 apprentices; Munich, the Bavarian capital, has 20 journeymen and 5 apprentices; Dresden has 12 journeymen; Brunswick, 11 journeymen and 1 apprentice. The remaining are in twenty-two small towns.

In order to meet the requirements of the new German law, which makes obligatory compensation to workmen in case of accident, the representatives of the printing, typefounding, engraving, and paper industries have established a confederated mutual insurance fund, whose operations will extend over the whole German Empire. In addition to the central office at Leipsic, there will be nine branch offices in some of the leading cities of Germany. Dr. E. Brockhaus, of the famous Leipsic printing and publishing house, has been appointed president pro tem. It is hoped that the fund will be able to commence operations on the first of October next.—*London Press News*.

ACCORDING to the report of the Chamber of Commerce at Leipsic, for the year 1884, there were in that town at the close of the year ninety-five letterpress printing-offices, with eighty-two overseers, forty-three readers, 1,299 compositors, 359 pressmen and machine-minders, 245 operatives in the typefoundries, and 532 apprentices. Of machines there were at work 524 cylinder and four rotary ones, sixty-six treadle presses, eighty-four hand presses, and ninety proof presses. The number of press readers, forty-three, appears very small, but may be explained by the system of out-of-door reading carried on to a large extent at Leipsic, where there are a great number of poor students at the university who are glad to earn a few pence by proofreading.—*Printers' Register, London*.

ITEMS OF INTEREST.

THE governor and the controller of New Jersey have designated 116 newspapers throughout that state to publish, as advertisements, the laws enacted by the last legislature.

A LIQUID glue can be made by softening 100 parts best Russian glue in 100 parts warm water, and then adding slowly $5\frac{1}{2}$ to 6 parts nitric acid, and finally 6 parts powdered sulphate of lead. The latter is used to impart a white color.

RECENTLY in Germany a scientific journal made the statement that it would be beneficial to the eyesight to print books in dark blue ink on pale green paper. The first volume printed in this way "The Natural History of the Women of Berlin," has just made its appearance.

PAPER may be rendered impermeable to water by a brief immersion in ammonia-cupric sulphate solution, and subsequent pressing and drying. By uniting several sheets while still wet, by passing them between rollers, you form them into a hard, firm mass of great strength.

A PRINTING machine has been patented by Mr. Philip Jackson, of Plainfield, N. J. This invention relates to two-revolution printing-presses, and covers a special construction and arrangement of parts to cover the raising of the impression cylinder during the return of the type bed.

A BERLIN compositor has invented an economical apparatus for taking stereotypes. It can be used for taking proofs, as a mold, and as an imposing stone. It is simply a press with hinges, which, when opened out, is used for the latter purposes. It is considered a great boon for small printing establishments.

A BRILLIANT ink for black bordering mourning-paper and cards may be prepared of lampblack, borax, and shellac. The borax must first be thoroughly dissolved in hot water, after which three times the quantity of shellac is added, as well as a sufficient quantity of lampblack. The shellac imparts the luster, and may be added according to desire.

A PASTE that will not draw engravings when pasted down on paper must be thin. A mixture of gum tragacanth and gum arabic forms, with water, a thinner mucilage than either of these two gums alone. Rice flour is said to make an excellent paste for fine paper work. A solution of two ounces and a half of gum arabic in two quarts warm

water is thickened to a paste with wheat flour; to this is added a solution of alum and sugar of lead, one ounce and a half each in water. The mixture is heated and stirred until about to boil, and then cooled. It may be thinned with a gum solution.

A SIMPLE METHOD OF COPYING PRINTS.—Letterpress or illustrations printed in printer's ink, may be copied by simply wetting a piece of stiff paper or card, and rubbing it over with an agate burnisher or old tooth brush. If the ink has got dry through age or being kept in a hot room, moisten with spirits of wine or toilet vinegar. Have a soft blotting pad beneath.

HERE is a practical recipe: Packing paper may be made watertight by dissolving 1.82 lb. of white soap in one quart of water, and dissolving in another quart 1.82 oz.—apothecaries' weight—of gum arabic, and 5.5 ozs. of glue. The two solutions are to be mixed and warmed, the paper soaked in the mixture and passed between rollers or hung up to dry.

THE United States Government is the greatest printer in the world. The aggregate number of governmental publications issued annually amounts now to about 2,500,000, of which about 500,000 are bound volumes. This is the maximum. But a moderate estimate will put the aggregate publications of the government from the beginning until today at 30,000,000 to 40,000,000.

THE *Bulletin de l'Imprimerie*, of Paris, describes what it calls a new system of mounting electro and stereo plates, invented by a M. Corsain. The system is one of fixed blocks and side catches, which grip the plates on the bevel. The catches are made to slide in an inclined groove, so that by moving them in a certain direction they may be made fast, and by reversing the motion, loosened.

THE Penig papermill, one of the largest in Germany, is manufacturing a patent security paper for documents, checks, etc., which changes color immediately it is tampered with. Dr. Fresenius, a high authority on chemistry in Germany, has made extensive trials with the paper in question, twenty-seven specimens written in different inks having been tested. Though he succeeded in removing the ink without injuring the structure of the paper, the color was proof against the reagents.

JAPANESE papermills appear to be making money notwithstanding that the imports of paper into Japan are increasing. One of the Japanese mills declared a dividend of 17 per cent for the year ended June 30, and the others are reported to be prospering. The consumption of paper in the empire is very great and the supply is scarcely equal to the demand, more mills being wanted. Here is an opportunity for our exporters of paper. Japan has only about a dozen papermills and a population of thirty-eight million souls.

PAPER it is said is taking the place of cedar in the making of lead pencils. A novel use for paper has been found in the manufacture of gaspipes. In addition to being absolutely tight and smooth, and much cheaper than iron, these pipes are of great strength, for when the sides are scarcely three-fifths of an inch thick they will stand a pressure of more than 15 atmospheres. If buried under ground they will not be broken by settlement, nor when violently shaken or jarred. The material being a bad conductor of heat, the pipes do not readily freeze.

MR. FREDERICK WICKS (England), who is the inventor of an ingenious type-composing machine, has been experimenting with a view to economically substituting typesetting for distribution. He is convinced that the difficulties of distributing the types into the necessary slides obstruct the general use of mechanical type composers. It is announced that his efforts have reached a practical stage. He has made a machine which will cast type at the rate of one hundred letters a second, each different, there being one hundred molds arranged around the metal-pot, and all filled at the same moment.

THE following is the rule to find the weight of type required for a job: Divide the area of the page expressed, in pica ems, by 128. The result gives the number of pounds weight in the page. Fifty per cent for small fonts, and thirty to forty per cent for large fonts, should be added to allow for sorts, etc. Example: I have to set fifty pages of brevier octavo, the size of the page in pica ems being 20 by 34. What font of type should I order? The area of each page is 20 by 34,

equal to 680 ems pica. Divide by 128, and multiply by the number of pages, 50. The result is 266, nearly. Add 40 per cent and the sum will be 372 pounds.

M. DERRIEV, of Paris, has constructed for the St. Petersburg *Novoe Vremya* a rotary machine for printing illustrations, which is described as an improvement upon former rotary machines. The most essential innovation is the separation of the illustration electros from the text in printing. Instead of having to pass over two cylinders, in the new press it has to pass over four—two cylinders for the illustrations and two for the text. A great advantage is claimed for the new machine in so far as, owing to separate inking tables being provided, a better description of ink, or even ink with a brownish or bluish shade, may be used for the illustrations, and thus a better effect produced.

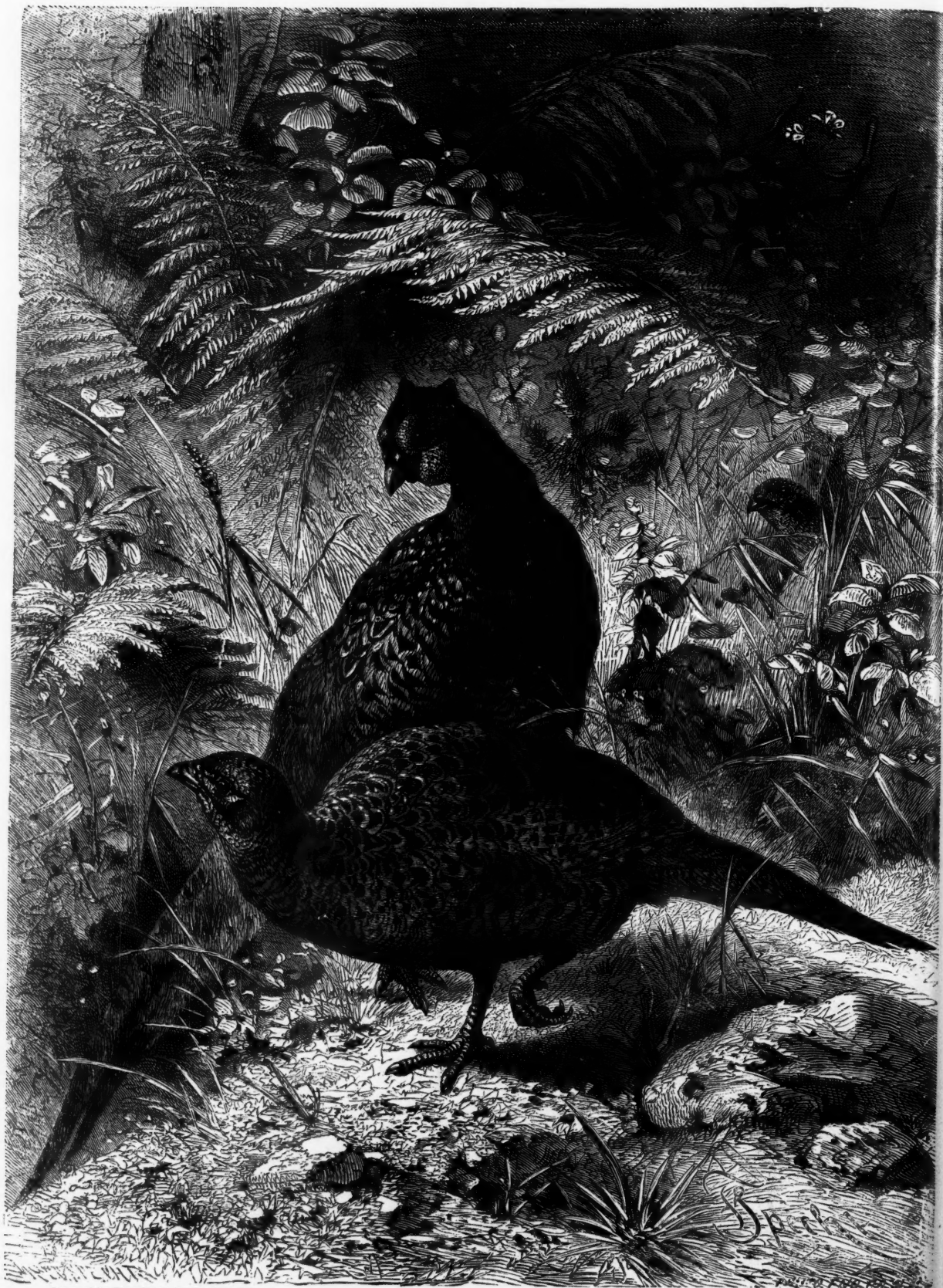
THE printing-press has made presidents, killed poets, furnished bustles for beauties, and polished genius with criticism. It has made worlds get up at roll call every morning, given the pulpit lungs of iron and a voice of steam. It has set a price on a bushel of wheat, and made the country postoffice the glimmering goal of the rural scribe. It has curtailed the power of kings, embellished the pantry shelves, and bursted; it has converted bankers into paupers, and made lawyers of college presidents; it has educated the homeless and robbed the philosopher of his reason. It smiles and kicks, and cries and dies, but it can't be run to suit everybody, and the editor is a fool who tries it.—*San Bernardino Times*.

IN mitering rules, the following table shows the adjustment of the scale:

	SIDES.	DEGREES.
Triangle	3	60
Right angled triangle.....	2 equal sides.....	67½
	for each end of base, and.....	45
	for other corner.	
Square	4	45
Pentagon	5	36
Hexagon	6	30
Heptagon	7	25 5/7
Octagon	8	22½
Nonagon	9	20
Decagon	10	18
Undecagon	11	16 4/11
Dodecagon	12	15

TYMPAN leather is largely used by lithographic printers. The hides are sometimes dressed whole, being usually hides set apart for that purpose; shaved hides may be used if they run stout. The hides should average from twenty-five to thirty-five pounds each. A writer in a leather trade journal says that, in practice, he has found it the best way to cut the bellies off in the rough state, that is to say, before they are soaked down. Great care must be taken in selecting the hides for tympan, as they must be quite free from flaws or cuts on either side. It is better to select good grown hides, as this gives the advantage of cutting large sized tympan, and the veins are easily got out without reducing the substance of the leather. From a well-grown hide, tympan can be cut close up to the neck. When the hides are dressed whole, that is, with the bellies on, there is not the possibility of getting the stretch out, which is very necessary.

GOLD PRINTING.—The usual method of printing in bronze is to take impressions with ink composed of strong varnish mixed with French yellow, and then apply the bronze with a piece of cotton wool. After the ink has had time to dry, with a clean rag or silk pocket-handkerchief, remove all superfluous dust. This description of printing is much improved in appearance if done on enameled or highly glazed paper or cards, for which description of printing add a little gold size. Printing in gold leaf requires much more care and skill than with bronze. Ink should be made with chrome yellow, mixed with strong varnish. Before taking impressions, cut the gold leaf in strips wider than the line or lines it is intended to cover. Having all prepared, ink the form in the usual manner, and pull. The gold leaf is then laid carefully on, lay a sheet of writing paper on the top, and then smooth over with the hand, in order to make it stick all over the inked parts, and when sufficiently dry it may be cleaned off in the same manner as bronze. If this description of printing or gilding is properly managed it will be found a great improvement on bronze printing.



Engraved by Photo-Engraving Co., New York.

ENGLISH PHEASANTS.

GOLDING'S NONPAREIL LEAD-CUTTER.



Newly invented, by the patentees of the Little Giant Rule Cutter, is the most powerful lead-cutter made, cutting three-to-pica rule with ease. It has front and back gauges, and the handle is raised by a spring. Price, \$4. Sold by all the leading dealers and typefounders, and by the manufacturers, Golding & Co., Boston, Mass.

SLATE IMPOSING-STONES FOR PRINTERS' USE.

The very high prices charged by manufacturers and dealers for marble imposing-stones have driven many printers to other expedients for imposing purposes, and even those wealthy enough to buy marble or iron surfaces have purchased these so small as to be more inconvenient than useful. Plenty of stone room in a book, job or newspaper printing-office is a great necessity, as it expedites work and saves time in keeping an office clean of pi, etc. No employing printer need think of scrimping the stone room in his office now that he can obtain stones at a price within the reach of all. In introducing our solid slatestone imposing-stones we feel confident that we are giving to printers an article which for usefulness and price is unsurpassed.

Slatestone is peculiarly adapted to printers' use. It is much stronger than marble, takes a smoother surface without polishing, is much lighter, and does not stain or rust as does marble. It is impervious to oils, acids or alkalies, can be easily cleaned of inks and grease with soap and water, and is "a thing of beauty and a joy forever." To establish the superiority of slatestone over marble it is only necessary to state that for billiard beds, slate has driven all other stones out of competition. If better adapted for this purpose than marble, surely then for printers' slabs, which require no more solidity or accuracy of surface, it is also superior to marble. Its great strength also admits of a saving in weight, as slabs 1½ inches thick are strong enough for the largest sizes of imposing-surfaces.

As a proof of superiority in strength, it is only necessary to point to the following mechanical test made upon a Fairbanks machine by F. R. Hutton. The Fair Haven slate resisted a crushing force of 12,870 lbs. to the square inch, averaged from three tests; Vermont marble, 8,375 lbs., averaged from five tests; Italian marble, 10,178 lbs., averaged from four tests.

Its strength and fitness being established, the price at which it can be furnished, if less than that of marble, will at once commend it. We give below a table of various sizes of stones, with prices which you can compare with the prices charged for marble.

No.	SIZE, INCHES.	PRICE.	No.	SIZE, INCHES.	PRICE.
1	17 x 21	\$2.50	8	24 x 58	\$9.68
2	20 x 25	3.47	9	32 x 47	10.45
3	24 x 29	4.84	10	35 x 51	12.40
4	17 x 42	4.97	11	36 x 68	12.29
5	26 x 34	6.14	12	29 x 84	16.92
6	20 x 50	6.05	13	32 x 94	20.80
7	29 x 42	8.47	14	35 x 102	24.80

Any size stone desired made to order. Price one dollar per superficial foot.

These prices are for stones 1½ inches thick, sand finished on both sides, square edges, boxed and delivered at any railroad station or steamboat landing east of the Mississippi river. Rates of freight to any point west of the Mississippi river furnished when requested. The weight is about 25 lbs. per superficial foot.

Slate imposing-stones are no experiment. In the slate producing sections of Vermont they have been used in printing-offices for years,

and their durability and adaptability thoroughly tested and indorsed. Their introduction to the craft all over the country has not been before attempted. We are pioneers in this effort, and our facilities for production and manufacture are ample and enable us to furnish them promptly and cheaply, in large or small orders.

Below are a few of the flattering testimonials received:

WILLIAM J. KELLY, Fine Steam Printer, 330 Pearl street,
NEW YORK CITY, August 19, 1885.

MESSRS. F. W. REDFIELD & Co., Fair Haven, Vermont:

Gentlemen,—The three slate imposing-stones, which you have made for me (to cover a continuous imposing space of 13 ft. 5 in. long by 3 ft. wide), were received yesterday, and placed in position. I need hardly tell you that these three stones are perfect in fit and evenness, and that they are the admiration of the hands in my office as well as visiting printers. I now have four of your slate imposing-stones in my office, and a large iron imposing-surface—no marble—and when I assure you that I prefer the slate to the marble (even if it cost the same price as marble), for many reasons important to printers, I do you but justice in my preference. Of course your price for slate stones does not average more than half the price charged for marble imposing-surfaces, which adds greater reasons for the use of slate stones.

Yours very truly,

WM. J. KELLY.

SHEPARD & JOHNSTON, General Job Printers, 147-146 Monroe street,
CHICAGO, August 26, 1885.

F. W. REDFIELD & Co., Fair Haven, Vermont:

Gentlemen,—We are well pleased with the slate imposing-stone we put in our office for trial. It is all you claim, and this combined with its relative cheapness ought to insure the success the slate stone merits.

Yours respectfully,

SHEPARD & JOHNSTON.

LIVINGSTON MIDDLEDITCH,

Book, Job and Law Case Printer, 26 Cortlandt street,
NEW YORK CITY, August 28, 1885.

F. W. REDFIELD & Co., Fair Haven, Vermont:

Gentlemen,—I have used the slate imposing-stones of your make and find them very satisfactory. At the price it certainly will not pay to let the workmen wait for stone room in an office.

LIVINGSTON MIDDLEDITCH.

JOHN D. LUCAS, Steam Job Printer, No. 14 Water street,
BALTIMORE, July 23, 1885.

MESSRS. F. W. REDFIELD & Co., Fair Haven, Vermont:

Gentlemen,—I have had for some months one of your slate imposing-stones, and am very well pleased with it. We have iron and marble imposing-surfaces, but we consider yours equal, if not superior to either. The price, also, being so much less, with the objection of iron rust removed, that we don't hesitate to say we prefer your slate imposing-stones to any we have in use.

Yours truly,

JOHN D. LUCAS.

Office of HAIGHT & DUDLEY, Steam Printers
(Successors to A. V. HAIGHT),
POUGHKEEPSIE, N. Y., February 23, 1885.

MESSRS. F. W. REDFIELD & Co., Fair Haven, Vermont:

Gentlemen,—We have had one of your slate imposing-stones in use in our office several months, and we are well pleased with it.

Very truly,

HAIGHT & DUDLEY.

H. M. OLTROGGE,

Newspaper, Book and Job Printer, 32 and 34 Frankfort street,
NEW YORK CITY, September 11, 1885.

MESSRS. F. W. REDFIELD & Co., Fair Haven, Vermont:

Gentlemen,—The imposing-slab we received from you some four months ago is everything we could wish. It answers all purposes, and in some respects is superior to marble. On the night of June 9 we had a fire, and while the marble stones cracked from the heat, yours stood the test and received no damage whatever. It is a good working stone. My men like it, and the difference in price of it to marble ought to commend it to all printers.

Yours truly,

H. M. OLTROGGE.

Address all orders to F. W. REDFIELD & Co., Fair Haven, Vermont.

IMPROVED STEREO-PLATES.

The A. N. Kellogg Newspaper Company, 72 Jackson street, Chicago, are now prepared to furnish almost everything in the shape of reading matter, from the latest telegraphic news for daily papers, to interesting miscellaneous articles for weeklies, includes serial stories, tales, illustrated and otherwise, traveling sketches, poetry, religious reading, scientific articles, and semi-news matter of particular interest. Their illustrated plates, though but recently introduced, have already become immensely popular, and the demand for them is daily increasing. The economy and convenience resulting from the use of stereo-plates have made them a necessary part of the outfit of a country office, while the services now rendered by them are so varied and their forms and style and make-up such that every publisher desiring their services can be suited. This firm is now furnishing eleven different sized columns, full length, ranging from 13¼ inches to 25¼ inches, thus saving all cutting and adjustment.

PRANG'S CHRISTMAS AND NEW YEAR'S CARDS.

Never before has the superiority of Prang's line of cards been more clearly admitted on all hands as this year, not only in the excellence of the lithographic work, but also in the variety and artistic treatment of subjects. They come again in plain cards, single and double, as well as fringed, single and double, to which forms a few novelties have been added. Many of the designs are exquisite in conception and finish, and fully sustain the well earned reputation of this firm as fine art publishers. In *Satin Art Prints* the samples excel all previous efforts in the artistic execution of the pictures, as well as in the rich and tasteful mountings, though in many instances simple appropriateness has been preferred to elaborate ornamentation. The beautiful backs for which Prang's line is also distinguished again hold their own, while the literary matter has had the most careful attention.

THE CRANSTON IMPROVED BOOK AND NEWS PRESS.

We direct the attention of our readers to the advertisement of the Improved Cranston press, published in the present issue. Among the special advantages claimed for it are the following: The entire framework is of the same solid symmetrical proportion as that which characterizes the quality of Cranston's patent improved press. The support to impression is unyielding; heavy bed plate. Wide tracks with steel runners and rolls accurately gauged. Gears cut from the solid, with the utmost precision, by improved machinery. Delivery without tapes; wheels adjustable to any size sheet. Patented device for controlling motion of the sliders; none better in use. Patent silent adjustable bunter motion, with instantaneous throw-off. Even, unfailing distribution; positive movements. Noiseless gripper motion; easily adjusted. Close fly cam. Bearers and feed guides, capable of the finest adjustment. Large sized form rollers, easily placed in position and as easily removed without altering their set. Bed geared to cylinder throughout impression. Register "true as a die." Deep fountain; will hold large supply of ink; cover for fountain. Convenient arrangement for adjusting fountain roll. Friction to control motion of the fly. Patent stop and reversing motion, enabling the operator to stop the press at any desired point and run it backward without leaving position on the platform, thereby effecting economy of time and labor. Stock and workmanship the same as on the patent improved presses. Finish, first class in every way.

From the many recommendations received as to its efficiency, we select the following: Messrs. Elsas, Keller & Co., Dallas, Texas, write under date of August 15, 1885: "Our Cranston presses are giving satisfaction." For further information write to J. H. Cranston, manufacturer, Norwich, Connecticut.

IMPORTANT ANNOUNCEMENT TO THE TRADE.

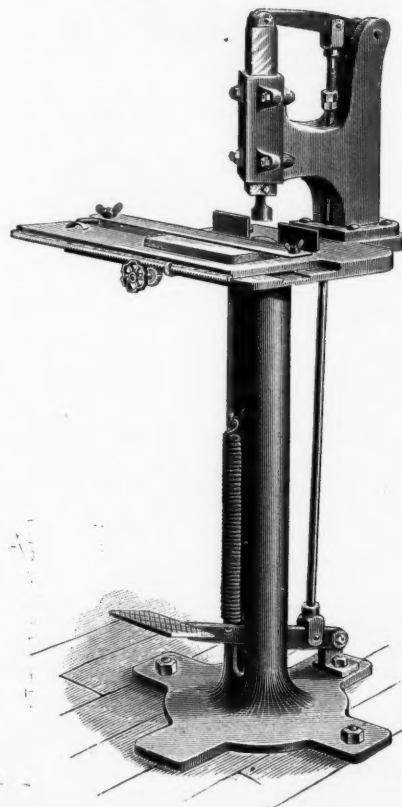
The firm of C. B. Cottrell & Sons announce to their numerous patrons and the trade in general that the unfortunate accident, the falling of the structure in which their Chicago workshops were located, and by which they were destroyed, will not in any manner interfere with their ability to promptly fill all orders now on hand or which may in future be committed to their trust. With characteristic energy, before the dust had well nigh settled on the ruins, new and more commodious quarters had been secured, the machinery uninjured transferred, and in a few days at furthest the largest and most complete shop for the manufacture of electrotyping and stereotyping machinery and general repairing to be found in the Western States, will again be in successful operation.

Though but a few years since the branch manufactory of this firm was established in this city, under the efficient supervision of Mr. E. A. Blake, its business has grown to immense proportions, several of the largest electrotyping and stereotyping outfits in the United States having been furnished by this establishment. What the firm has done in the past, however, is only an earnest of what it proposes to do in the future, so that with enlarged and improved facilities, the use of the best tools furnished by modern invention, employing only first-class workmen, and with the establishment under the immediate supervision

of wide-awake, skilled mechanics and business men, it confidently relies on a continuance of the liberal patronage which it has heretofore enjoyed. The office will remain at 198 South Clark street.

NEW COMBINATION MACHINE.

EMBRACING AN INDEX CUTTER, BOX MAKER'S CORNER CUTTER, PUNCHING MACHINE AND ROUND CORNER CUTTER.



The above cut represents a combination machine recently put on the market by the E. P. Donnell Manufacturing Company, of this city, which takes the place of four machines that are most generally used. The Index Cutter (same as herewith shown) has clamp to hold the book, and has a wheel and rack to move the book as desired for any size index cutting. It cuts perfectly, makes a round corner and clean index. The knife can be replaced with a round corner knife that makes the machine the best round corner cutter in the market, and the Box Makers' Corner Cutter is as good as any offered for sale. It includes punch for eyelets, which is used for punching holes, for stringing pamphlets, cards, etc., etc. The gauges are adjusted to any angle, and at the price will give you a complete outfit, requiring very little room. It is very strong, and nothing to get out of order. Price, complete, \$75.00.

The following letter, in connection therewith, explains itself:

THE E. P. DONNELL MFG. CO. CHICAGO, September 7, 1885.
Gentlemen,—The Indexing Machine furnished by you is just what we want. It works splendidly, and we would not spare it out of the office and go back to old hand style of indexing for five times its value. Why have you not thought of this method before, and saved us the worry of indexing for years past?

Yours truly, THE J. M. W. JONES STARY & PTC. CO.,
Per CHAS. J. STROMBERG, Superintendent.

IN Boston there are over two thousand compositors (including job-offices), male and female. Of these eight hundred and twenty-seven, all told, are members of the typographical union, a few of them women. Over a quarter of the whole number are now out of employment.

THE CHICAGO ENGINE AND BOILER.

We herewith present to our readers an illustration of the Chicago Engine and Boiler which the Shniedewend & Lee Co., of 303-305 Dearborn street, Chicago, are now manufacturing, and which is especially adapted to the use of printing-offices and other places where light power is required. It is reliable, well built and easy managed. The Chicago Engine and Boiler are capable of running a country cylinder press and several job presses with ease, and with very little expense for fuel. Not more than fifteen minutes is required for getting up steam, with coal or wood. It is claimed to be the cheapest power yet devised, as the cost of fuel for running is less than two cents an hour per horse power. At a recent thorough test of the amount of fuel required to run the engine, it was proven that one hundred pounds of soft coal per day would accomplish the task.

The cheapness of this engine, its adaptability to all ordinary uses, its economy in fuel, the ease with which it can be managed by inexperienced persons, and the small floor space required, all combine to make it just the power needed in every country printing-office.

The Chicago Engine is of the reliable slide-valve pattern, and as substantial in construction as the largest engines. The cylinder and steam-chest joints are ground so as to prevent the necessity of packing. The cross-head guides, crank-shaft bearings and cylinder are in one solid piece, hence can never get out of line. The piston head is fitted with self-spring packing, the cross-head gibs are of journal brass, and travel in broad bearings. The piston rod, valve stem and double crank shaft are all steel. The connecting rod is fitted with adjustable steel boxes, at both ends, for taking up any lost motion which may arise from use.

The Chicago Boiler is made of the finest materials throughout; the shell is 5-16 inch charcoal iron, the head 5-16 flange iron, and the flues are the best lap-welded wrought iron. It has a heavy iron firebox lined with circular firebrick, which prevents loss of heat by radiation, and insures the consumption of all gases. The grate is made to shake, and is adapted to hard or soft coal, or wood. The whole stands on a heavy iron base, with ashbox.

The dimensions of the Chicago Engine and Boiler are as follows: Floor space, 3 feet 8 inches by 2 feet 2 inches; height of engine to top of cylinder head, 3 feet 2 inches; inside diameter of cylinder, 3 $\frac{3}{8}$ inches; length of stroke, 4 $\frac{1}{2}$ inches; diameter of balance wheel, 16 inches; diameter of band wheel, 12 inches; width of face, 4 inches; height of boiler, including base, to top of hood, 5 feet 9 $\frac{1}{2}$ inches; 22 flues 2 inches in diameter and 2 feet 10 inches long; weight of engine and boiler complete, 1280 pounds.

The Chicago Engine and Boiler is furnished complete, with Hancock Inspirator and Judson Governor, balance wheel, band wheel, governor belt, lubricator, steam gauge, water gauge, safety valve and blow-off cocks, compression gauge cocks, and connections between engine and boiler—all that is necessary to start the engine, except piping to connect with flue. All on one base, as shown in cut, or separate bases if preferred, at \$250. The following testimonials speak for themselves.

No. 304 THIRTY-FIRST ST., CHICAGO, August 20, 1885.

SHNIEDEWEND & LEE CO.:

Gentlemen,—The Chicago Engine we purchased of you has proved to be all you recommended it. It is compact, well built, takes up very little room, economical as to fuel, and is managed without any difficulty by a boy. We only wish we had put it in two years before we did. Will be willing to recommend it at any time.

THE DOUGLAS PRINTING CO.

SHNIEDEWEND & LEE CO.:

ALEXANDRIA, DAK., September 1, 1885.

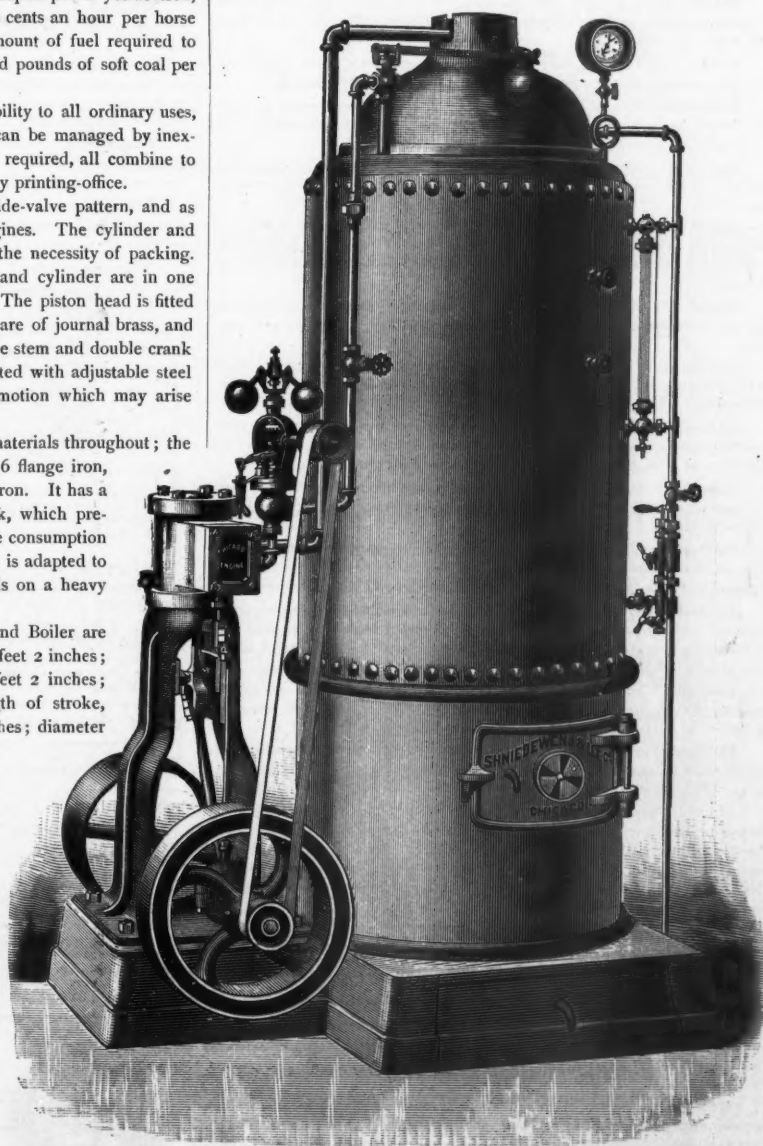
Gentlemen,—I am very much pleased with the Engine and Boiler, and think the Chicago is destined to be the leader of all small engines. It is well and carefully made and is a credit to your firm.

Yours truly,

L. C. TAYLOR.

THE ORIENTAL PRESS.

Japan possesses at this moment 2,000 newspapers. Considering that not a single journal of any kind existed, or was thought of, in the country twenty-five years ago, this rapid rise and spread of the newspaper press there is one of the most remarkable feats in the history of journalism. Japan now boasts of a greater number of newspapers than either Italy or Austria, of more than Spain and Russia taken together, and of twice as many as the whole continent of Asia. The appetite of the Chinese for news is sufficiently fed by the *Pekin Gazette*—which is,



in fact, not a newspaper at all—and two small sheets published in Shanghai. Corea possesses an official gazette since 1884, and nothing else resembling a newspaper exists. The French have already started a paper in their new colony—*L'Avenir de Tong-king*; but as it is a purely French sheet, it can hardly contribute much to the enlightenment of the natives. The Persians are comparatively insensible to the fascinations of the daily paper. The six papers which they possess owe their existence to the reigning shah, who is a man of letters himself, and composes poetry in his spare hours. The natives of India have a thousand newspapers.—*New York Sun*.

BUSINESS OUTLOOK.

CORRECTED FROM MONTH TO MONTH.

Cambridgeport.—State of trade, very dull; prospects, gloomy; composition on bookwork, 40 and 42 cents; job printers, per week, \$16 to \$18. More printers here than can find work.

Columbus.—State of trade, fair; prospects, good; composition on morning papers, 35 cents; evening, 33½ cents; bookwork, 33½ to 35 cents; job printers, per week, \$14.

Dayton.—State of trade, rather dull; prospects, not very flattering; composition on morning papers, 35 cents; evening, 32 cents; bookwork, 32 to 35 cents; job printers, per week, \$15. Printers enough here already. No difficulty.

Detroit.—State of trade, fair; prospects, not very encouraging; composition on morning papers, 35 cents; evening, 32 cents; bookwork, 33½ cents; job printers, per week, \$14. No difficulty.

Elmira.—State of trade, fair; prospects good; composition on morning papers, 30 cents; evening, 30 cents; bookwork, 30 cents; job printers, per week, \$12.

Evansville.—State of trade, medium; prospects, good; composition on morning papers, 30 cents; evening, 25 cents; bookwork, 30 cents; job printers, per week, \$12. No card, no work.

Galveston.—State of trade, good; prospects, good; composition on morning papers, 30 cents; evening, 40 cents; bookwork, 40 cents; job printers, per week, \$20.

Grand Rapids.—State of trade, good; prospects, good; composition on morning papers, 30 cents; evening, 28 cents; bookwork, 28 cents; job printers, per week, \$13. A boycott has been started against C. M. Loomis, book and job printer, for conducting a rat office.

Hamilton.—State of trade, dull; prospects, dull; composition on morning papers, 30 cents; evening, 28 cents; bookwork, 30 cents; job printers, per week, \$10.

Indianapolis.—State of trade, exceedingly dull; prospects, poor; composition on morning papers, 35 cents; evening, 33 cents; bookwork, 35 cents; job printers, per week, \$15.

Jacksonville, Fla.—State of trade, very good; prospects, encouraging; composition on morning papers, 30 cents; evening, 30 cents; bookwork, 30 cents; job printers, per week, \$15. There will be a chance for a few printers.

Knoxville.—State of trade, good; prospects, favorable; composition on morning papers, 30 cents; evening papers, 30 cents; bookwork, 30 cents; job printers, per week, \$14.00.

La Fayette.—State of trade, not very good; prospects, favorable; composition on morning papers, 30 cents; evening, 25 cents; bookwork, 30 cents; job printers, per week, \$12.

Louisville.—State of trade, good; prospects, exceedingly cheering; composition on morning papers, 40 cents; evening, 37 cents; bookwork, 40 cents; job printers, per week, \$18. Good printers can find ready employment. The job offices, as a general rule, are running up to their full capacity, with a scarcity of help.

Leadville.—State of trade, fair; prospects, fair; composition on morning papers, 50 cents; evening, 45 cents; bookwork, 50 cents; job printers, per week, \$26.

Milwaukee.—State of trade, better than for a year past; prospects, good; composition on morning papers, 38 cents; evening, 33 cents; bookwork, 35 cents; job printers, per week, \$14 to \$18.

Minneapolis.—State of trade, improving; prospects, not very flattering in the newspaper line; composition on morning papers, 38 cents; evening, 33 cents; bookwork, 35 cents; job printers, per week, \$16. The *Tribune* has bought the *Journal* and will take charge November 1. It is understood that by the consolidation under one management, the expense in the mechanical department is to be cut considerably.

Mobile.—State of trade, at a standstill; prospects, not encouraging; composition on morning papers, 40 cents; evening, 40 cents; bookwork, 40 cents; job printers, per week, \$16.

Montreal.—State of trade, dull; prospects, poor; composition on morning papers, 32 cents; evening, 28 cents; bookwork, 28 cents; job printers, per week, \$10.

Newark.—State of trade, a little better; prospects, hopeful; composition on morning papers, 36 cents; evening, 32 to 33 cents; bookwork, 32 cents; job printers, per week, \$15.

New Haven.—State of trade, dull; prospects, not very bright; composition on morning papers, 35 cents; evening, 35 cents; bookwork, 35 cents; job printers, per week, \$16.

Quebec.—State of trade, very dull; prospects, poor; composition on morning papers, 30 cents; evening, 25; job printers, per week, \$7 and upward.

Sacramento.—State of trade, fair; prospects, fair; composition on morning papers, 50 cents; evening, 45 cents; bookwork, 45 cents; job printers, per week, \$21.

St. Paul.—State of trade, fair; prospects, good; composition on morning papers, 38 cents; evening, 33 cents; bookwork, 35 cents; job printers, per week, \$15. Printers are very plentiful in St. Paul this fall.

Salt Lake City.—State of trade, dull; prospects, not very bright; composition on morning papers, 50 cents; evening, 45 cents; bookwork, 45 cents; job printers, per week, \$18.

South Bend.—State of trade, good; prospects, fair; composition on morning papers, 25 cents; evening, 25 cents; bookwork, 25 cents; job printers, per week, \$12.

Trenton.—State of trade, fair; prospects, very encouraging; composition on morning papers, 30 cents; evening, 30 cents; bookwork, \$14 per week, or 35 cents.

Terre Haute.—State of trade, fair; prospects, indicate no change in the near future; composition on morning papers, 30 cents; evening, 25 cents; bookwork, 30 cents; job printers, per week, \$12. The *Gazette*, evening paper, pays under the scale.

Topeka.—State of trade, fair; prospects, encouraging; composition on morning papers, 30 cents; evening, 25 cents; bookwork, \$15 per week; job printers, per week, \$15. Both morning papers in this city are non-union.

Toledo.—State of trade, improving; prospects, fair; composition on morning papers, 33½ cents; evening, 30 cents; bookwork, 33½ cents; job printers, per week, \$15.

Toronto.—State of trade, very dull; prospects, not very bright; composition on morning papers, 30 cents; evening, 28 cents; job printers, per week of 54 hours, \$11.

Washington.—State of trade, very dull; prospects, not good; composition on morning papers, 40 cents; evening, 40 cents; bookwork, 40 cents; job printers, per hour, 30 cents. There is a strike in Gibson Brothers' office for price and a half for foreign languages.

Wilkesbarre.—State of trade, better; prospects, encouraging; composition on morning papers, 30 cents; evening, 25 cents; bookwork, 30 cents; job printers, per week, \$14 to \$15.

Wilmington.—State of trade, no better; prospects, more encouraging; composition on Sunday morning papers, 35 cents; evening, 25 cents; bookwork, 20 and 25 cents; job printers, per week, \$10 and \$12.

Winnipeg.—State of trade, very fair; prospects, doubtful; composition on morning papers, 35 cents; evening, 32½; job printers, per week, \$16.

Youngstown.—State of trade, fair; prospects, good; composition on morning papers, 35 cents; evening, 30 cents; job printers, per week, \$14.

FOR SALE, AT A BARGAIN.—A democratic daily in a democratic city, county and state, and located at one of the most popular health resorts on the continent. Daily circulation larger than any other in the state except two. Complete joboffice in connection. All for \$7,000 cash, or will sell half interest to the right kind of a newspaper man. Address C. A. D., care INLAND PRINTER.

DEMOCRATIC PRINTERS, ATTENTION.—Big bargain in joboffice, established 8 years, in western city of 30,000, wholly democratic. First-class chance to make a fine thing on small capital. Don't lose this chance. Other business compels the sale. If you mean business, address C. A. ROGERS, 940 W. Madison street, Chicago, Ill.

PRINTER, reliable and sober, seventeen years' experience in job book and news, wants steady engagement. Has run job office and made up weekly paper. Address J. MANNING, 244 Longworth street, Cincinnati, Ohio.

PRINTER WANTED in every city to introduce my patent Lightning Galley Lock-up, and combined side-stick and quoins. Indorsed by leading printers as the most practical, durable and economical devices in use. C. A. DIRR, Room 5, 51 and 53 La Salle street, Chicago.

THE PROGRESSIVE PRINTER, the best book for journeymen and apprentices. Tells what you ought to know. Full of practicable suggestions. Full of hints and new ideas. 3,000 sold. Buy one quickly. Price, 75 cents. S. WHYBREW, 13 Stone street, Rochester, New York.

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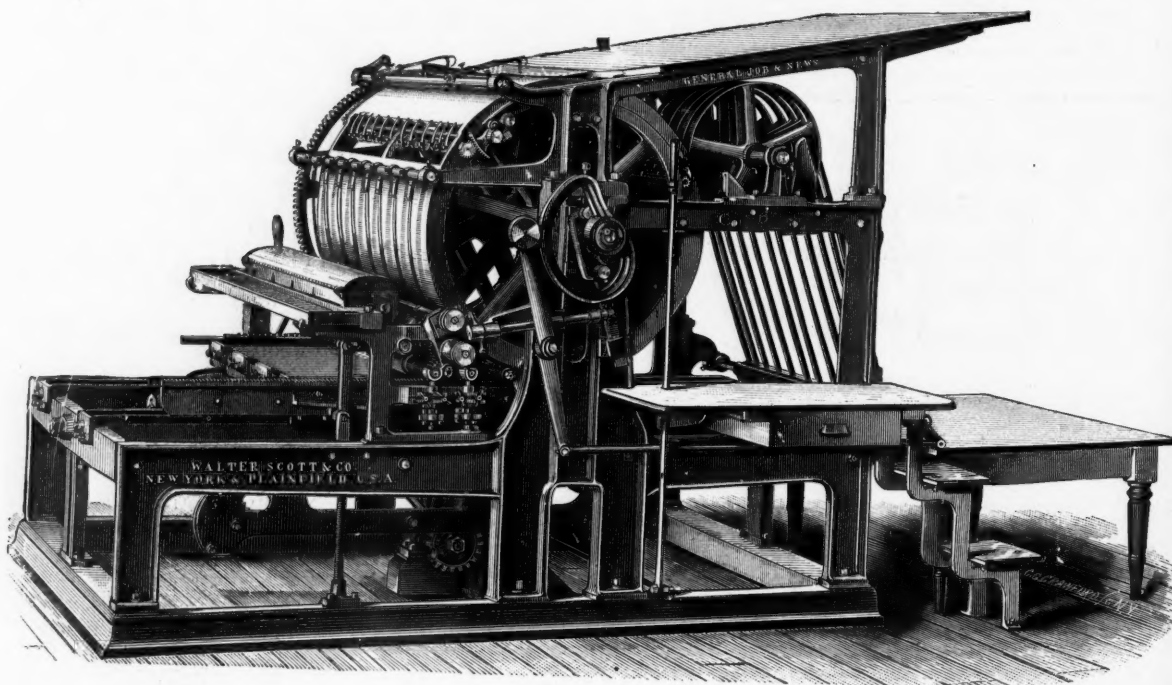
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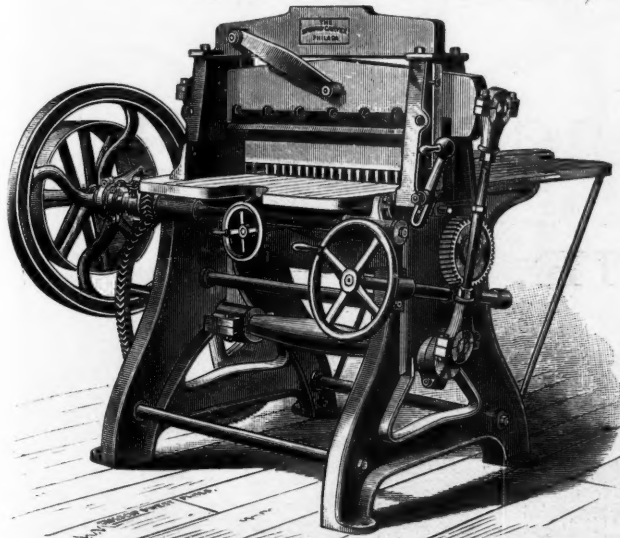
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No other quoin that we have yet seen is so constructed that it can be finished and made true by machinery at a reasonable cost; while none will lock a form as quickly and with as little labor as the HEMPEL QUOIN.

Although many attempts have been made to supersede the HEMPEL QUOIN, none have proved successful. Amateurs, novices, as well as old hands, easily acquire the knack of using them to advantage, and all acknowledge that they are the perfection of a lock-up. Some printers as well as dealers, have been led to buy imitations of our quoins, owing partly to their resemblance to ours, but particularly on account of the low price at which they were offered, and the invariable result has been that they were dear at any price.

Attempts have also been made to introduce quoins resembling one of our old patented quoins, which we found imperfect, and did not introduce on that account; yet unprincipled and irresponsible parties, having made slight alterations, are seeking to introduce these imperfect quoins, and have in some instances succeeded in doing so—partly on account of the partial resemblance of these quoins to our perfected quoin, but, principally, because they offered and sold them at any price. The result has been that the victims have often become prejudiced against all mechanical quoins.

All quoins geared together with teeth and a key, or having a feather or rib and groove to prevent them from sliding laterally on each other, are an infringement on some of our various patents, and their sale and use makes both vender and user liable to a suit for damages. As a rule, it will be found that these infringements are offered by irresponsible parties, and we would kindly suggest to purchasers to use caution in purchasing quoins that possess any feature resembling ours.

We have but one factory in America, which is located at Buffalo, N.Y., and our quoins are on sale with all dealers in printers' materials.

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JOHN H. STONEMETZ.

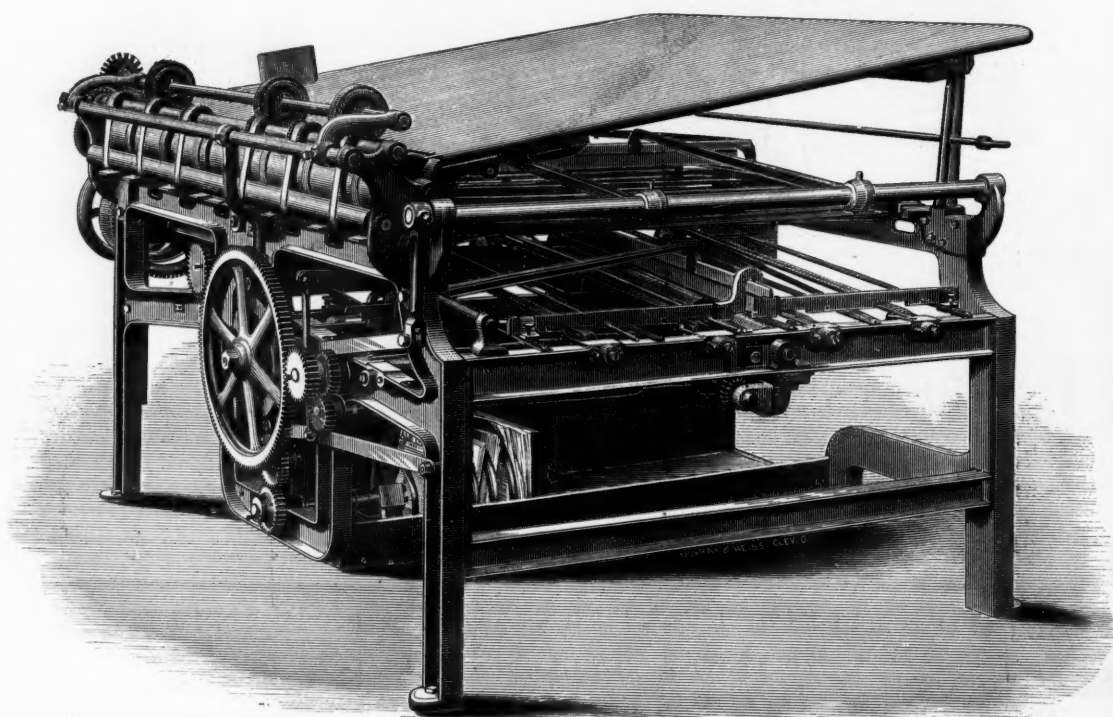
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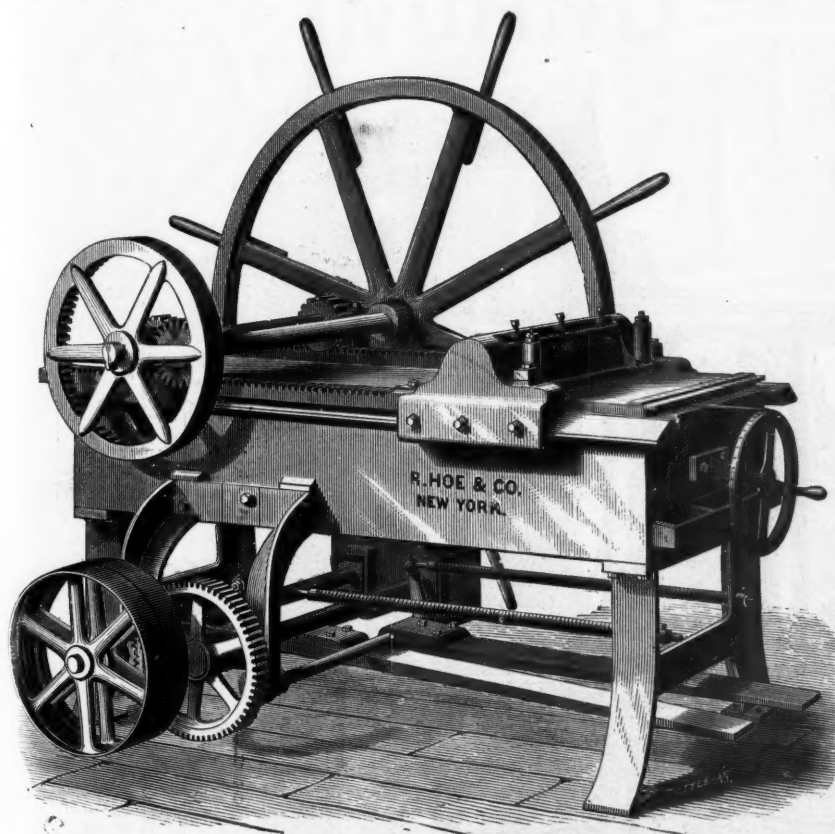
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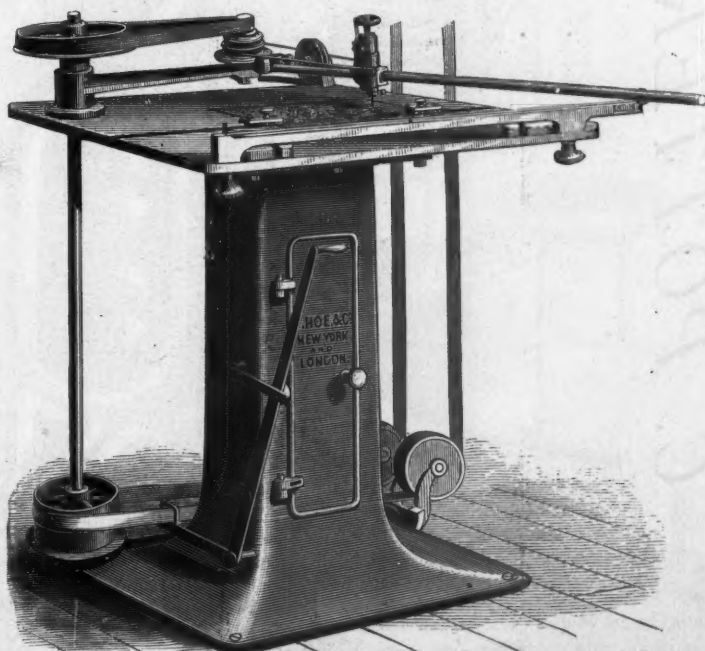
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This machine is used for cutting out blank spaces in plates by means of rotating steel cutters as shown in cut. It is solidly mounted on an iron base. Power is communicated to the upright shaft and thence by pulleys and belts to the steel cutters. A spring rest prevents the tool from touching the plate till pressed down by the operator. The stand contains shelves for tools, etc.

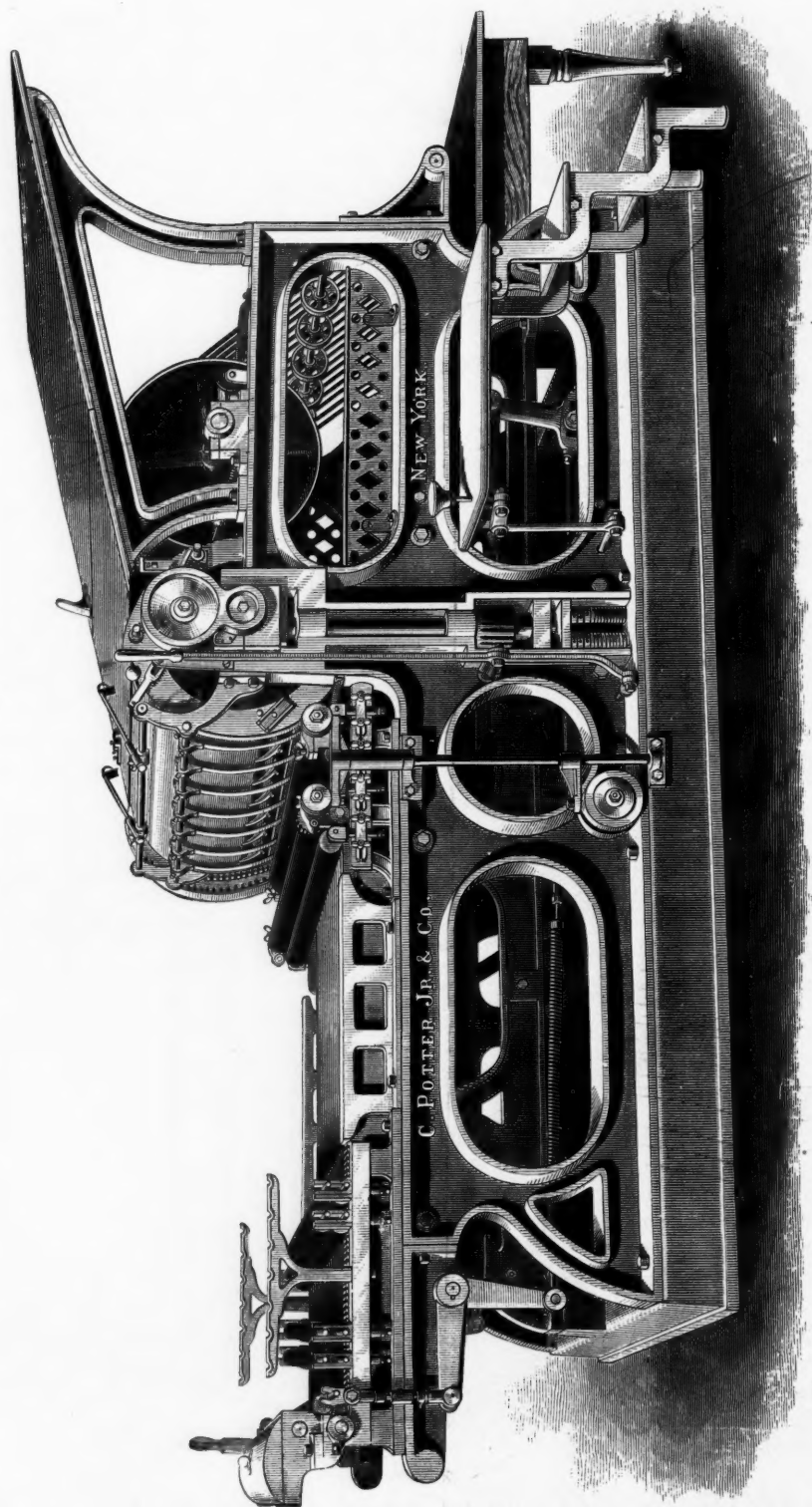


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